

Daniel Andresen

Professor and Head, Department of Computer Science
Director, Institute for Computational Research in Engineering and Science
Michelle Munson-Serban Simu Keystone Research Scholar
Kansas State University
2174 Engineering Hall
Manhattan, KS 66506-2302
Tel: 785-532-6350
Fax: 785-532-7353
Email: dan@ksu.edu
WWW: <http://www.cs.ksu.edu/~dan>

- EDUCATION**
- Ph.D.**, Computer Science, University of California, Santa Barbara, CA. December, 1997
Thesis Title: "SWEB++: Distributed Scheduling and Software Support for High Performance WWW Applications."
Advisor: Prof. Tao Yang
- M.S.**, Computer Science, California Polytechnic State University, San Luis Obispo, CA. September, 1992.
- B.S.**, Computer Science and Mathematics, double major, magna cum laude, honors in major, Westmont College, Santa Barbara, CA. May, 1990.
- AWARDS**
- Professorial Performance Award March, 2022
Michelle Munson-Serban Simu Keystone Research Scholar September, 2020
NSF CAREER Award 2001
KSU Engineering Student Council Outstanding Leadership Award December, 2004, 2005, 2008
Residence hall's Professor of the Year nominee 2000, 2002
Cargill Faculty Fellow 1999, 2000
College of Engg. James L. Hollis Memorial Award for Excellence in Undergraduate Teaching nominee 1999, 2006
- RESEARCH INTERESTS**
- Parallel and distributed systems, HPC scheduling, Research Cyberinfrastructure, digital libraries/WWW applications, Grid/cloud computing, and scientific modeling.
- TEACHING INTERESTS**
- Graduate-level parallel/distributed computing, scientific computing, networking, operating systems, and computer architectures. Courses taught include operating systems (CIS520), Topics in Distributed Systems (CIS825), Introduction to Computer Architecture (CIS450), Software Engineering (CIS642), Web Interface Design (CIS526), and Advanced World Wide Web Technologies (CIS726).

**WORK
EXPERIENCE**

Department Head in the Department of Computer Science at Kansas State University. 06/2025-present

Program Director (IPA) in the Division of Computer and Network Systems (CISE/CNS) at the National Science Foundation. 02/2024-06/2025

Expert Consultant in the Division of Computer and Network Systems (CISE/CNS) at the National Science Foundation. 02/2022-02/2024

Professor in the Department of Computer Science at Kansas State University. 07/2015-present

Associate Professor in the Department of Computing and Information Sciences at Kansas State University. 07/2003-06/2015

Director, Institute of Computational Research in Engineering and Science at Kansas State University 09/2011-present

Assistant Professor in the Department of Computing and Information Sciences at Kansas State University. 10/1997-06/2003

Research assistant at UCSB for Alexandria digital library project. A member of the parallel processing/performance team and the implementation team. Working on performance monitoring, scheduling, resource optimization, and software support for multi-processor WWW servers and adaptive client-server computing. Applications in digitized document/image retrieval and browsing. 09/1994-05/1997

Computer Consultant at Santa Barbara, CA. Computer consulting for small businesses and sole proprietorships. Specialized in Macintosh systems. 01/1986-10/1997

Teaching assistant at UCSB. Leading discussion sections, giving several lectures, and grading for undergraduate courses (Introduction to Computer Systems and Parallel Scientific Programming). 09/1994-05/1995

Software Engineer at Hewlett-Packard Corp., Cupertino, CA. Member of HP Distributed Smalltalk (CORBA) development team. Developed automated testing tools and developer utilities. 05/1993-08/1993

Software Engineer at Summer Institute of Linguistics, Dallas, TX. Volunteer member of computing support team. Developed algorithms and GUI for a linguistics database/text processing system. 06/1990-08/1990

Software Engineer at Summer Institute of Linguistics, Irian Jaya, Indonesia. As volunteer implemented employee DBMS and developed several text manipulation programs. Trained linguistics teams on new software tools. 06/1989-07/1989

CAREER OVERVIEW

At a high level my research is in distributed systems, ranging from sensor networks monitoring bovine health levels to high performance computing systems. This is frequently entwined with my role as the Director of the Institute for Computational Research in Engineering and Science (ICRES), which oversees the campus research HPC cluster, Beocat, and building the cyberinfrastructure (CI) foundation for KSU to successfully compete at the national level. My regular research partnerships extend beyond Computer Science to Civil Engineering, Biology, Agriculture, Biochemistry, Physics, Geography, Veterinary Medicine and beyond KSU to Nebraska, Oklahoma, Missouri, and Arkansas.

I am an NSF CAREER award winner with over \$72M total funding from NSF, NIH, USDA, and private industry, including 27 grants as PI, and two NSF MRI grants. I have over 100 refereed publications, an h-index of 27, an i10-index of 40, and over 2,100 citations (Google Scholar). My research has been viewed over 18,000 times (ResearchGate). I have served on numerous program committees and review panels (including NSF and NIH).

On a national level, I am a recognized leader in the HPC and XSEDE communities. My work has been featured in HPCWire's podcast, *Soundbites* ("The Big Data Challenges of Unmanned Systems Research"), and I am a former member of the XSEDE Campus Champions National Leadership Team, which consists of six leaders selected from 600+ campus champions across the US. Until January, '20 I was one of eight regional campus champions, as well as a founding member of the Coalition for Advanced Research Computing (CARCC). I have led KSU's selection as an XSEDE Level 3 Service Provider (one of less than ten nationwide). I have also spearheaded the adoption of the "KanShare" MOU, which allows any academic in Kansas and their national or international collaborators access to centrally managed HPC resources at the signatory institutions.

As the Director of the ICRES, and XSEDE Campus Champion, I have nurtured research cyberinfrastructure at KSU to nationally impact our competitiveness. Our cluster, Beocat, has grown from four machines and 14 cores to its current position as one of the largest academic supercomputers in the state of Kansas (10,000+ cores, 350+ machines. Our user base has grown similarly – from about ten users initially to approximately 1,000 today. We are also involved with the campus CUI compliance effort. My duties include selecting optimal systems for researcher needs, managing the center budget, and advising campus leadership on research computing trends. As Dr. Jesse Poland notes, "We have multiple externally funded projects with national and international impact that rely on Beocat as a critical resource." Dr. Eduard Akhunov is "leveraging the power of Beocat . . . to develop whole-genome prediction models for wheat . . . to develop heat-tolerant, high-yielding, and farmer-accepted varieties for South Asia, while simultaneously increasing the research for development capacity of the global wheat improvement system." Our YouTube video introducing users to MPI programming has 8K+ views. Our employees have grown from 0.5FTE to 3.5FTE during this period as well. I regularly review and support young faculty and postdocs across the university (particularly in the colleges of Engineering, Agriculture, and Arts & Sciences) in their research, helping review grant proposal, writing letters of support, and assisting with preliminary data. At one point recently 3 of the 4 CAREER award winners were also Beocat users.

I work with our office of sponsored research, participated in related outreach such as visiting the Army National Simulation Center at Fort Leavenworth, KS to explore potential joint research. I also represent KSU in numerous cyberinfrastructure (CI)-related efforts in the region, ranging from helping the Kansas legislature Vision 2020 subcommittee develop a plan for a statewide HPC center, to my efforts as the Great Plains Network CI Program Committee Cyberinfrastructure chair.

I currently serve as a Program Director in the NSF CISE/CNS Computer Systems Research cluster. From '22-'23, I served as an Expert Consultant with the National Science Foundation (NSF) in the Division of Computer and Network Systems (CISE/CNS), acting as a program officer for the CNS Major Research Instrumentation (MRI) program. My activities include managing budgets, building research communities, clustering proposals for panels, recruiting a diverse, expert set of panelists, making funding recommendations, and working with both funded researchers to establish expectations, and unfunded researchers to help improve their proposals for resubmission.

My teaching philosophy revolves around the belief that students “don't know it until they program it,” and the conviction that they need to know *why* they make design decisions, *what* the end product should be, and *how* to accomplish this end. In practice, this means lectures provide an interactive, high-level view of concepts and content, with assignments providing practical experience. I have won the KSU Engineering Student Council Outstanding Leadership Award three times ('04, '05, '08), and was nominated twice for the College of Engineering James L. Hollis Memorial Award for Excellence in Undergraduate Teaching ('99, '06). I enjoy regularly teaching courses with a practical, performance-oriented flavor. I have served on over 300 graduate student committees, including 30+ Ph.D. committees.

At KSU, my primary service contributions have been through my activities enabling research computing and CI, such as my work writing the campus Research Computing Plan and the draft Data Management Plan document for campus with ORSP and KSU Libraries, participating in multiple seminars on grant writing and data management for junior faculty, and representing KSU to regional and national organizations such as testifying at the KS legislature, and developing regional CI plans with the Kansas City Area Life Sciences Institute. I have also had the privilege of being the faculty mentor for two of our CS faculty, Dr. Doina Caragea (tenured '12) and Dr. Eugene Vasserman (tenured '16).

I meet regularly with prospective students, their families, visiting scholars, and student groups to introduce them to K-State research capabilities. This includes prospective faculty members, with whom I plan how to meet their research computing needs, and researchers from other schools, such as Bethany College and Pittsburg State University, who need access to resources beyond what their institution can offer. We also provide regular supercomputing training for local and remote users.

At the national and international level, I have been on seventeen NSF review panels, three NIH review committees, 60+ conference program committees in the area of distributed and parallel computing, an External Advisory Committee member for grants in Oklahoma and Arkansas, am regularly a conference panelist and/or session chair, have reviewed papers for fourteen international journals, am consistently quoted in news articles in the Kansas City Star and other outlets (and have had articles about our research appear in outlets like *The Economist* and *ScienceDaily*).

JOURNAL PUBLICATIONS

1. E. Giunta, D. Stutzman, S. Cohen, B. French, L. Walsh, L. Dauer, J. Boice, S. Blattnig, D. Andresen, A. Bahadori, "Colossus: software for radiation epidemiological studies with big data," in *Journal of Radiological Protection*. 45. April, 2025. 10.1088/1361-6498/adcd80.
2. L. Dauer, M. Mumma, J. Lima, S. Cohen, D. Andresen, A. Bahadori, M. Bellamy, D. Bierman, S. Blattnig, B. French, E. Giunta, K. Held, N. Hertel, L. Keohane, R. Leggett, L. Lipworth, K. Miller, R. Norman, C. Samuels, K. Thomas, S. Tolmachev, L. Walsh, J. Boice Jr., "A Million Person Study Innovation: Evaluating Cognitive Impairment and other Morbidity Outcomes from Chronic Radiation Exposure Through Linkages with the Centers for Medicaid and Medicare Services Assessment and Claims Data," in *Radiation Research*, October, 2024.
3. Hutchison, S., Andresen, D., Neilsen, M., Hsu, W., and Parsons, B. , "Optimized Hardware Procurement for High Performance Computing Systems." in the *International Journal on Advances in Systems and Measurements*, 17, no. 1&2, pp. 46-55, 2024. https://www.iariajournals.org/systems_and_measurements/tocv17n12.html **Invited paper.**
4. H. Zhao, L. Zhang, M. Kirkham, S. Welch, J. Nielsen-Gammon, G. Bai, J. Luo, D. Andresen, C. Rice, N. Wan, R. Lollato, D. Zheng, P. Gowda, and X. Lin, "U.S. winter wheat yield loss attributed to compound hot-dry-windy events", in *Nature Communications*, November, 2022. Impact factor: 17.69. <https://www.nature.com/articles/s41467-022-34947-6>
5. H. Qian, D. Andresen, "Automate Scientific Workflow Execution between Local Cluster and Cloud". in *the International Journal of Networked and Distributed Computing (IJNDC)*, Vol 4, No 1, January, 2016. **Invited paper.**
6. H. Qian, D. Andresen, "Reducing Mobile Device Energy Consumption with Computation Offloading," in Springer's Studies in Computational Intelligence, 2015. Impact factor: 1.04. **Invited paper.**
7. H. Qian, D. Andresen, "Jade: an efficient energy-aware distributed computational offloading system with heterogeneous network interface bonding for ad-hoc networked mobile devices," in *The International Journal of Networked and Distributed Computing*, Vol. 3, Issue 3, July, 2015. **Invited paper.**
8. R. Raghavan, Daniel Neises, Doug A. Goodin, D. Andresen, R. Ganta, "Bayesian Spatio-Temporal Analysis and Geospatial Risk Factors of Human Monocytic Ehrlichiosis. in *PLoS ONE* 01/2014 9(7):e100850, 2014. Impact factor: 3.54.
9. T. Bulatewicz, D. Andresen, S. Auvenshine, J. Peterson, D. R. Steward, "A distributed data component for the Open Modeling Interface," in *Environmental Modelling & Software*, January, 2014. Impact factor: 3.48.

10. T. Bulatewicz, W. Jin, S. Staggenborg, S. Lauwo, M. Miller, S. Das, D. Andresen, J. Peterson, D. R. Steward, and S. M. Welch, "Calibration of a crop model to irrigated water use using a genetic algorithm," in the *Journal of Hydrology and Earth System Sciences (HESS)*, Vol. 13, pp. 1467-1483, 2009. Impact factor: 3.64.
11. A. King, S. Procter, D. Andresen, J. Hatcliff, S. Warren, W. Spees, R. Jetley, P. Jones, and S. Weininger, "A publish-subscribe architecture and component-based programming model for medical device interoperability." *SIGBED Rev.* 6, 2, Article 7 (July 2009), 10 pages. DOI=10.1145/1859823.1859830 <http://doi.acm.org/10.1145/1859823.1859830>
12. B. White, J. Coetzee, D. Renter, A. Babcock, D. Thomson, D. Andresen, "Evaluation of two-dimensional accelerometers to monitor beef cattle behavior post-castration," in *the American Journal of Veterinary Research*, Volume 69, No. 9, pp. 1005-1012, August, 2008. Impact factor: 1.28.
13. J. Mintert, D. Andresen, T. Schroeder, "Improving Efficiency In Business-to-Business Information Transfers: A Web-Based Solution in the Beef Sector," in *the International Journal of Information Management*, August, 2003. Impact factor: 2.04.
14. D. Andresen, M. Neilsen, G. Singh, P. Kalita, Domain-specific Metaware for Hydrologic Applications in the *International Journal of Parallel and Distributed Systems and Networks*, vol. 5, no. 4, pp. 178-184, 2002. Impact factor: 1.01.
15. D. Andresen, T. McCune, H-SWEB: A Hierarchical Scheduling System for Distributed WWW Server Clusters, *Concurrency: Practice and Experience*, Volume 12, pages 1-22, 2000. Impact factor: 0.99.
16. D. Andresen, T. Yang, O. Ibarra, O. Egecioglu, "Adaptive Partitioning and Scheduling for Enhancing WWW Application Performance," *the Journal of Parallel and Distributed Computing (JPDC)*, pp. 57-85, Vol. 49, No. 1, Feb. 25, 1998. Impact factor: 1.21.
17. D. Andresen, T. Yang, O. Ibarra, Towards a Scalable Distributed WWW Server on Workstation Clusters, *the Journal of Parallel and Distributed Computing (JPDC)*, pp. 91-100, vol. 42, September, 1997. Impact factor: 1.21.
18. T.R. Smith, D. Andresen, L. Carver, R. Dolin, C. Fischer, J. Frew, M. Goodchild, O. Ibarra, R. Kemp, R. Kothuri, M. Larsgaard, B. Manjunath, D. Nebert, J. Simpson, A. Wells, T. Yang, Q. Zheng, A Digital Library for Geographically Referenced Materials, *IEEE Computer*, vol. 29, no. 5, pp. 54-60, 1996. (Note erratum on page 14 of *IEEE Computer*, vol. 29, no. 7.) Impact factor: 1.68.

REFEREED CONFERENCE PUBLICATIONS

1. D. Riffel, D. Andresen, S. Hutchison, W. Hsu, "Parallel Backfill: Improving HPC System Performance by Scheduling Jobs in Parallel," in the *Proceedings of PEARC '24: Practice and Experience in Advanced Research Computing 2024: Human Powered Computing*, Providence, RI, July 21-25, 2024. <https://doi.org/10.1145/3626203.3670610>
2. S. Hutchison, D. Andresen, M. Neilsen, W. Hsu, B. Parsons, "Scheduling for high performance computing with reinforcement learning," in the *Proceeding of OkIP International Conference on Advances in Parallel and Distributed Computing (APDC 2024)*, Oklahoma City, OK, April 1-4, 2024. <https://www.okipublishing.com/book/index.php/okip/catalog/book/40>
3. S. Hutchison, D. Andresen, W. Hsu, M. Neilsen, B. Parsons, "Optimized Hardware Configuration for High Performance Computing Systems," in *Proceedings of the 17th International Conference on Advanced Engineering Computing and Applications in Sciences (ADVCOMP 2023)*, Porto, Portugal, September 15-25, 2023.
4. S. Hutchinson, M. Neilsen, W. Hsu, B. Parsons, D. Andresen, "High Performance Computing Queue Time Prediction using Clustering and Regression," in the *Proceedings of WAML-HPC 2022: 1st Workshop on Applications of Machine Learning and Artificial Intelligence in High-Performance Computing*, held in conjunction with the *51st International Conference on Parallel Processing (ICPP'22)*, Gdansk, Poland, September 11-14, 2022.
5. M. Tanash, D. Andresen, C. Bohn, W. Hsu, "Cost-Effective Resource Provisioning of Cloud Computing via Supervised Machine Learning," in the *Proceedings of the the 24th International Conference on Artificial Intelligence (ICAI'22)*, Las Vegas, NV, July 25-28, 2022.
6. A. Bose, H. Yang, w. Hsu, D. Andresen, "HPCGCN: A Predictive Framework on High Performance Computing Cluster Log Data Using Graph Convolutional Networks," in the *Proceedings of the Eighth International Workshop on High Performance Big Graph Data Management, Analysis, and Mining (BigGraphs 2021)*, to be held in conjunction with the 2021 IEEE International Conference on Big Data (IEEE BigData 2021), virtual conference, December 15-18, 2021.
7. G. Teague, D. Andresen, "Synapse: Facilitating large-scale data management in research contexts," in the *Proceedings of The Fifteenth International Conference on Advanced Engineering Computing and Applications in Sciences (ADVCOMP 2021)*, Best Paper Award winner, Barcelona, Spain, October 3-7, 2021.
8. M. Tanash, D. Andresen, W. Hsu, "AMPRO-HPCC: A Machine-Learning-Tool for Predicting Resources On Slurm HPC Clusters," in the *Proceedings of The Fifteenth International Conference on Advanced Engineering Computing and Applications in Sciences (ADVCOMP 2021)*, Barcelona, Spain, October 3-7, 2021.
9. M. Tanash, H. Yang, D. Andresen, W. Hsu, "Ensemble Prediction of Job Resources to Improve System Performance for Slurm-Based HPC Systems," selected as *Best Full Paper for the Systems*

- and Systems Software Track and Phil Andrews Award* for paper likely to be most impactful on the practice of research computing, in the *Proceedings of the 2021 ACM Conference on Practice and Experience in Advanced Research Computing (PEARC21)*, pp. 1-8, Portland, OR, July 19–22, 2021. <https://doi.org/10.1145/3437359.3465574>
10. A. Okanlawon, H. Yang, A. Bose, W. Hsu, D. Andresen, and M. Tanash, “Feature Selection for Learning to Predict Outcomes of Compute Cluster Jobs with Application to Decision Support,” in the *Proceedings of the 2020 International Conference on Computational Science and Computational Intelligence (CSCI’20)*, Las Vegas, USA, December 16-18, 2020.
 11. Andresen, D., Vasserman, E., “Making mountains out of molehills: Challenges for implementation of cross disciplinary research in the big data era.” in the *Proceedings of the Merrill Research Retreat*, Nebraska City, NE, July 10-12, 2019. (Published January 13, 2020) DOI: <https://doi.org/10.17161/merrill.2019.13292> **Invited paper.**
 12. K. Hutson, D. Andresen, A. Tygart, D. Turner, “Managing a Heterogeneous Cluster,” in the *Proceedings of the 2019 Conference on Practice and Experience in Advanced Research Computing (PEARC19)*, Chicago, IL, July 28-August 1, 2019.
 13. M. Tanash, B. Dunn, D. Andresen, Y. Huichen, A. Okanlawon, W. Hsu, “Improving HPC System Performance by Predicting Job Resources via Supervised Machine Learning,” in the *Proceedings of the 2019 Conference on Practice and Experience in Advanced Research Computing (PEARC19)*, Chicago, IL, July 28-August 1, 2019.
 14. V. Ranganath, D. Andresen, “Why do Users Kill HPC Jobs?,” in the *Proceedings of the 25th IEEE International Conference on High Performance Computing, Data, and Analytics (HiPC’18)*, Bengaluru, India, December 17-20, 2018.
 15. D. Turner, D. Andresen, K. Hutson, A. Tygart, “Application Performance on the Newest Processors and GPUs,” in the *Proceedings of the 2018 Conference on Practice and Experience in Advanced Research Computing (PEARC18)*, Pittsburgh, PA, July 22-26, 2018. Acceptance rate: 66%.
 16. D. Andresen, W. Hsu, H. Yang, and A. Okanlawon, “Machine Learning for Predictive Analytics of Compute Cluster Jobs.” in the *Proceedings of the 16th International Conference on Scientific Computing (CSC 2018)*, Las Vegas, Nevada, USA, July 30 - August 2, 2018.
 17. H. Qian, D. Andresen, “Emerald: Enhanced Scientific Workflow Performance with Computation Offloading to the Cloud,” in the *Proceedings of the 14th IEEE/ACIS International Conference on Computer and Information Science (ICIS’15)*, Las Vegas, Nevada, USA, June 28-July 1, 2015.
 18. H. Qian, D. Andresen, “An Energy-saving Task Scheduler for Mobile Devices,” in the *Proceedings of the 14th IEEE/ACIS International Conference on Computer and Information Science (ICIS’15)*, Las Vegas, Nevada, USA, June 28-July 1, 2015.

19. H. Qian, D. Andresen, "Reducing Mobile Device Energy Consumption with Computation Offloading," selected as one of top 15 submissions, and invited to publish extended version in SCI journal, in the *Proceedings of 16th IEEE/ACIS International Conference on Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing (SNPD 2015)*, Takamatsu, Japan, June 1-3, 2015.
20. H. Qian, D. Andresen, "Extending Mobile Device's Battery Life by Offloading Computation to Cloud," short paper, in *the electronic proceedings of the 2nd International Conference on Mobile Software Engineering and Systems (MOBILESoft 2015)*, co-located with the 37th International Conference on Software Engineering (ICSE 2015), Florence, Italy, May 16 - 24, 2015.
21. H. Wu, X. Li, C. Scoglio, D. Gruenbacher, D. Andresen, "Size-based Flow management Prototype for Dynamic DMZ," in the *Proceedings of the 11th International Conference on Design of Reliable Communication Networks (DRCN 2015)*, Kansas City, MO, March 25-27, 2015.
22. H. Qian, D. Andresen, "Jade: an efficient energy-aware computational offloading system with heterogeneous network interface bonding for ad-hoc networked mobile devices," in the *Proceedings of the 15th IEEE/ACIS International Conference on Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing (SNPD 2014)*, Las Vegas, NV, June 30 - July 2, 2014.
23. R. Feldhausen, S. Bell, and D. Andresen, "Minimum Time, Maximum Effect: Introducing Parallel Computing in CS0 and STEM Outreach Activities Using Scratch," in the *Proceedings of the Extreme Science and Engineering Discovery Environment 2014 (XSEDE14)*, in cooperation with ACM SIGAPP, Atlanta, GA, July 13-18, 2014. Acceptance rate: 67%.
24. T. Bulatewicz, D. Andresen, "Accessible Parallelization for the Open Modeling Interface," in the *Proceedings of the Extreme Science and Engineering Discovery Environment 2014 (XSEDE14)*, in cooperation with ACM SIGAPP, Atlanta, GA, July 13-18, 2014. Acceptance rate: 67%.
25. S. Bell, E. Vasserman, D. Andresen, "Developing and Assessing a Multi-Factor Authentication Protocol for Revocable Distributed Storage in a Mobile Wireless Network," in the *Proceedings of the 2014 International Conference on Security and Management (SAM'14)*, Las Vegas, NV, July 21-24, 2014. Acceptance rate: 23%.
26. Steward, D. R., Aistrup, J., Kulcsar, L., Peterson, J. M., Welch, S. M., Andresen, D., Bernard, E. A., Staggenborg, S. A., and T. Bulatewicz, "Integrated, interdisciplinary water resources studies using the Simple Script Wrapper," Governor's Conference on Future of Water in Kansas, Manhattan, KS, October 30-31, 2012.
27. Bulatewicz, T. and Andresen, D., "Efficient data collection from Open Modeling Interface (OpenMI) components", in the *Proceedings of the 2012 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'12)*, Las Vegas, NV, July 16-19, 2012.

28. J. Sharp, E. Y. Vasserman, D. Andresen, and J. Hatcliff. "Towards an ICE-compliant logger within MDCF." In *Proceedings of the Workshop on Infrastructure, Tools, and Technologies for Systems of Systems of Medical Devices (SoSMD)*, Lawrence, KS, November 12, 2011.
29. Bulatewicz, T. and Andresen, D., "Efficient data access for Open Modeling Interface (OpenMI) components", in the *Proceedings of the 2011 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'11)*, Las Vegas, NV, July 18-21, 2011. Acceptance rate: 23%. (Winner of one of three "Outstanding Contribution to OpenMI Award for 2011".)
30. T. Mehlinger, D. Andresen, and A. Tygart, "Towards Simplifying Workflow Execution on the Grid", in the *Proceedings of the 7th Int'l Conference on Grid Computing and Applications (GCA'11)*, Las Vegas, NV, July 18-21, 2011. Acceptance rate: 23%.
31. Staggenborg, S. A., Waite, J., Aistrup, J., Andresen, D., Bernard, E. A., Bulatewicz, T., Kulcsar, L. J., Peterson, J. M., Schlegel, A., Steward, D. R. and Welch, S. M. "Simulating deficit irrigation for use in coupled model scenarios", in *Welch, S. M. ed. Proceedings of the 41st Biological Systems Simulation Conference*. pp. 37-38, Austin, TX, April 19-21, 2011.
32. Steward, D. R., Aistrup, J., Andresen, D., Bernard, E. A., Bulatewicz, T., Kulcsar, L. J., Peterson, J. M., Staggenborg, S. A. and Welch, S. M. "A comprehensive crop modeling geohydrolic framework to study the consequences of management practices," in *Welch, S. M. ed. Proceedings of the 41st Biological Systems Simulation Conference*, pp. 20-21, Austin, TX, April 19-21, 2011.
33. Bulatewicz, T. and Andresen, D. "Efficient data access for Open Modeling Interface (OpenMI) components", in *Welch, S. M. ed. Proceedings of the 41st Biological Systems Simulation Conference*, pp. 18-19, Austin, TX, April 19-21, 2011.
34. L. Carranco, D. Andresen, "SOAP Optimization over WCF via Client-Side Caching," in the *Proceedings of the 2010 International Conference on Semantic Web and Web Services (SWWS'10)*, pp. 11 – 17, Las Vegas, NV, July 12–15, 2010. Acceptance rate: 27%.
35. C. Kirkconnell, D. Andresen, "A REST-Base Messaging Server for Ruby on Rails," in the *Proceedings of the 2010 International Conference on Internet Computing (ICOMP'10)*, pp. 165 – 171, Las Vegas, NV, July 12–15, 2010. Acceptance rate: 27%.
36. S. Hoskins, D. Andresen, S. Warren, T. Sobering, "Near-Field Wireless Magnetic Link for an Ingestible Cattle Health Monitoring Pill," in the *the Proceedings of the 31th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC'09)*, Minneapolis, Minnesota, USA, 2nd - 6th September, 2009.
37. K. Smith, D. Andresen, S. Warren, "Motion-Based Behavior Assessment for a Wearable Cattle Health Monitoring System" in *the Proceedings of the 2009 International Conference on Bioinfor-*

- matics and Computational Biology (BIOCOMP'09)*, pp. 676–682, Las Vegas, NV, July 13-16, 2009. Acceptance rate: 27%.
38. A. King, S. Proctor, D. Andresen, J. Hatcliff, S. Warren, W. Spees, R. Jeyley, S. Weininger, "An Open Test Bed for Medical Device Integration and Coordination," in the *Proceedings of the 31st International Conference on Software Engineering (ICSE 2009)*, Vancouver, Canada, May 16-24, 2009. Acceptance rate: 16%.
 39. S. Warren, A. Martinez, T. Sobering, D. Andresen, "Electrocardiographic Pill for Cattle Heart Rate Determination," in the *Proceedings of the 30th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC'08)*, Vancouver, British Columbia, Canada, August 20th - 24, 2008.
 40. S. Warren, D. Andresen, D. Wilson and S. Hoskins, "Embedded Design Considerations for a Wearable Cattle Health Monitoring System," in the *Proceedings of the 2008 International Conference on Embedded Systems and Applications (ESA '08)*, pp. 55-62, Las Vegas, NV, July 14-17, 2008. Acceptance rate: 28%.
 41. D. Andresen, J. Hatcliff, G. Singh, S. Warren, "Observations and directions for high-confidence sensor networks," *Proceedings of the Composable and Systems Technology for High Confidence Cyber-Physical Systems Workshop*, Alexandria, Virginia, July 9-10, 2007.
 42. T. Bulatewicz, D. Andresen, S. Welch, W. Jin, S. Das, M. Miller, "A Framework for Scalable Parameter Estimation on Clusters," in the *Proceedings of the 8th LCI International Conference on High-Performance Clustered Computing (LCI-HPCC'07)*, Tahoe, CA, May 15-17, 2007.
 43. A. Martinez, S. Schoenig, D. Andresen, S. Warren, "Ingestible Pill for Heart Rate and Core Temperature Measurement in Cattle," in the *Proceedings of the 28th IEEE EMBS Annual International Conference*, New York, NY, August 30-September 3, 2006.
 44. K. Smith, A. Martinez, R. Craddolph, D. Andresen, S. Warren, "An Integrated Cattle Health Monitoring System," in the *Proceedings of the 28th IEEE EMBS Annual International Conference*, New York, NY, August 30-September 3, 2006.
 45. E. Bernard, D. Andresen, J. Hutchinson, "Linking Chemical Information with GeoDatabase Features via Web Services," in the *Proceedings of the Twenty-sixth ESRI International User Conference*, San Diego, CA, August 7-11, 2006.
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51. Barrett Langton, Daniel Andresen, Ethan Bowker, "An evaluation of the DESPOT scheduling algorithm on small Beowulf clusters," in *the Proceedings of the IASTED International Conference on Parallel and Distributed Computing and Systems (PDCS 2004)*, pp. 310–315, Boston, MA, November 3-5, 2004.
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53. Warren, Steve, Luke Nagl, Tammi Hildreth, Howard Erickson, David Poole, Mark Spire, and Daniel Andresen. "Wearable and Wireless: Distributed, Sensor-Based Telemonitoring Systems for State of Health Determination in Cattle," *2004 Talbot Symposium on Computers and Veterinary Informatics*, AVMA Annual Convention, Pennsylvania Convention Center, Philadelphia, PA, July 24-28, 2004.
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55. Nagl, L., B. Krishnamurthi, S. Schoenig, S. Warren, and D. Andresen. "Experiences Using WinCE PocketPCs as Computation and Data Acquisition Platforms for Ambulatory Telemonitoring," *26th Annual Conference of the IEEE EMBS*, St. Francis Hotel on Union Square, San Francisco, CA, September 1-5, 2004.

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58. K. Devaram, D. Andresen, "SOAP Optimization via Parameterized Client-Side Caching," in *the Proceedings of the IASTED International Conference on Parallel and Distributed Computing and Systems (PDCS 2003)*, pp. 785-790, Marina Del Rey, CA, November 3-5, 2003.
59. D. Andresen, M. Neilsen, and G. Singh, P. Kalita "Dharma: a Grid-enabled Domain-specific Metaware for Hydrology," in *the Proceedings of the IASTED International Conference on Parallel and Distributed Computing and Systems (PDCS 2003)*, pp. 791-796. Winner of IASTED Best Paper Award in the area of Distributed Computing Applications. Marina Del Rey, CA, November 3-5, 2003.
60. A. Hanenkamp, D. Andresen, "Heterogeneous Channel Bonding Revisited," in *the Proceedings of the IASTED International Conference on Parallel and Distributed Computing and Systems (PDCS 2003)*, pp. 387-392. Nominated for IASTED Best Paper Award in the area of Communication Issues. Marina Del Rey, CA, November 3-5, 2003.
61. V. Ranganath, D. Andresen, "A Set-based Approach to Packet Classification," in *the Proceedings of the IASTED International Conference on Parallel and Distributed Computing and Systems (PDCS 2003)*, pp. 889-894. Nominated for IASTED Best Paper Award in the area of Networking. Marina Del Rey, CA, November 3-5, 2003.
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72. D. Andresen, M. Neilsen, G. Singh, P. Kalita, M. Hirschi "DHARMA: Domain-specific Metaware for Hydrologic Applications," in the *Poster Proceedings of Supercomputing '01*, Denver, CO, November 10-16, 2001. Acceptance rate: 30%.
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78. D. Andresen, R. Novotny, The Modeler's Workbench: A system for dynamically distributed simulation and data collection, in *Proceedings of the Ninth IEEE International Symposium on High Performance Distributed Computing(HPDC9)*, pp. 300–301, Pittsburgh, PA, August, 2000.
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83. Y. Pu, D. Andresen "Distributed Processing for Cinematic Holographic Particle Image Velocimetry," *Proc. of the Eighth IEEE International Symposium on High Performance Distributed Computing(HPDC8)*, Los Angeles, CA, pp. 343–344, August, 1999.
84. D. Andresen, T. Yang, "SWEB++: Algorithms and Techniques for Distributed Scheduling on WWW Servers," *Proceedings of the Intl. Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA99)*, Las Vegas, NV, pp. 923–929, June, 1999. Acceptance rate: 28%.
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Technical Reports

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2. Scott Bell, Eugene Vasserman, Daniel Andresen, "Multi-Factor Authentication for More Resilient Distributed Storage in Wireless Networks," Tech Report: mobile_techreport_2013, March, 2013.
3. Andrew King, Sam Proctor, Dan Andresen, John Hatcliff, Steve Warren, William Spees, Raoul Jetley, Paul Jones, Sandy Weininger, "An Open Test Bed for Medical Device Integration and Coordination," Tech Report: SAnToS-TR-2008-02, October, 2008.
4. D. Duffey, D. Andresen, DUMP: Dump User Memory, Please, KSU CIS Tech Report 2002-2, 2002.
5. D. Andresen, R. Novotny, The Modeler's Workbench: A system for Dynamically distributed simulation and data collection, KSU CIS Tech Report99-13, 1999.

6. D. Andresen, T. Yang, Adaptive Scheduling with Client Resources to Improve WWW Server Scalability, UCSB Tech Report TRCS96-27, 1996.
7. D. Andresen, T. Yang, O. Egecioglu, O. Ibarra, T. Smith, Scalability Issues for High Performance Digital Libraries on the World Wide Web, UCSB Tech Report TRCS96-03, 1996.
8. D. Andresen, T. Yang, V. Holmedahl, O. Ibarra., SWEB: Towards a Scalable World Wide Web Server on Multicomputers, UCSB Tech Report TRCS95-17, 1995.

Other

1. A. Bahadori, E. Giunta, D. Eckerberg, D. Andresen, L. Walsh, B. French, J. D. Boice Jr., and L. T. Dauer, "PROGRESS ON RADIATION EPIDEMIOLOGIC ANALYSES WITH BIG DATA," to appear in the abstract proceedings of the Human Research Program Investigators' Workshop (IWS), Galveston, TX, January 28-31, 2025.
2. E. Giunta, D. Eckerberg, B. French, L. Walsh, D. Andresen, J.D. Boice Jr, L. Dauer, and A. Bahadori, "COLOSSUS, AN R SOFTWARE PACKAGE FOR LARGE-SCALE SURVIVAL ANALYSIS: FUTURE VISION," to appear in the poster proceedings of the Human Research Program Investigators' Workshop (IWS), Galveston, TX, January 28-31, 2025.
3. E. Giunta, D. Stutzman, S. Cohen, B. French, L. Walsh, L. Dauer, J.D. Boice Jr., S. Blattnig, D. Andresen, and A. Bahadori, "Colossus: software for radiation epidemiological studies with big data," oral presentation at *116th International Congress of the International Radiation Protection Association*, Orlando, Florida, July 7-12, 2024.
4. E. Giunta, L. Walsh, B. French, S. Cohen, D. Andresen, L. Dauer, D. Bierman, J.D. Boice Jr, and A. Bahadori, "Non-linear cancer survival analysis with big data: Colossus software development and testing for radiation epidemiological studies," in the poster proceedings of the *17th International Congress for Radiation Research (ICRR)*, Montréal, Canada, August 27-30, 2023.
5. S. Hutchison, D. Andresen, W. Hsu, "High Performance Computing Scheduler Parameter Optimization using Simulation and Regression," in the poster proceedings of the *International Conference for High Performance Computing, Networking, Storage and Analysis (SC22)*. Dallas, TX, November 14-17, 2022.
6. M. Tanash, R. Knepper, D. Andresen, "Improving XSEDE Systems Performance by Predicting Job Resources via Supervised Machine Learning," in the poster session of the *Rocky Mountain Advanced Computing Consortium HPC Symposium (RMACC 20)*, Boulder, CO, May 20-21, 2020.
7. M. Tanash, B. Dunn, D. Andresen, Y. Huichen, A. Okanlawon, W. Hsu, "Improving HPC System Performance by Predicting Job Resources via Supervised Machine Learning," in poster session of the *Rocky Mountain Advanced Computing Consortium HPC Symposium (RMACC 19)*, 2nd place winner in best poster competition, Boulder, CO, May 21-23, 2019.

8. K. Dice, C. Gray, G. Walker, C. Baldwin, D. Andresen, "CUDA-Accelerated Simulation of Brownian Dynamics", poster with extended abstract, in the *Proceedings of the 2018 Conference on Practice and Experience in Advanced Research Computing (PEARC18)*, Pittsburgh, PA, July 22-26, 2018.
9. A. Pahwa, S. Das, S. DeLoach, B. Natarajan, P. Gayle, D. Andresen, K. Jhala, H. Kanakri, A. K. Zarabie, "Architecture for Future Distribution Systems Including Active Consumers with Rooftop Solar Generation," *2017 NSF Cyber-Physical Principal Investigator's Meeting*, Arlington, VA, November 13-14, 2017.
10. J. Donnoe, D. Haeflinger, D. Andresen, "GPU Accelerated Kruskal's Algorithm on Randomly Generated Geometric Graphs," poster session, in *Practice & Experience in Advanced Research Computing (PEARC17)*, New Orleans, LA, July 9–13, 2017.
11. R. Habeeb, E. Koch, Z. Throneburg, H. Wu, C. Scoglio, D. Andresen, "Effect of Intermittent Interval Sampling on Software-Defined DMZs," KSU Undergraduate Research Presentation, Manhattan, KS, April 14, 2016.
12. ECAR-CCI Working Group. "Research Computing in the Cloud: Functional Considerations for Research." Research bulletin. Louisville, CO: ECAR, July 15, 2015.
13. H. Qian, D. Andresen, "Extending Mobile Device's Battery Life by Offloading Computation to Cloud," poster session, in *the2nd International Conference on Mobile Software Engineering and Systems (MOBILESoft 2015)*, co-located with the 37th International Conference on Software Engineering (ICSE 2015), Florence, Italy, May 16 - 24, 2015.
14. H. Wu, X. Li, C. Scoglio, D. Gruenbacher, D. Andresen, "Size-based Flow Management Enabling Dynamic DMZ," Poster presentation and demo, GENI Engineering Conference 21 (GEC21), Bloomington, IN, October 20-23, 2014.
15. H. Qian, D. Andresen, "Jade: an efficient energy-aware computational offloading system with heterogeneous network interface bonding for ad-hoc networked mobile devices," poster session, Great Plains Network (GPN) Annual Meeting, Kansas City, MO, May 30-June 1, 2014.
16. Z. Throneburg, D. Andresen, "Analyzing the Impacts of Resource Request Accuracy on Overall System Utilization in Supercomputing Cluster Environments", poster session, Great Plains Network (GPN) Annual Meeting, Kansas City, MO, May 30-June 1, 2014.
17. A. Pahwa, S. DeLoach, S. Das, B. Natarajan, X. Ou, D. Andresen, N. Schulz, G. Singh, M. S. Alam, D. Case, A. Malekpour, "Large Scale Integration of Rooftop Solar Power in Distribution Systems," *IEEE PES T&D Conf & Expo*, Chicago, IL, April 2014.
18. A. Pahwa, S. DeLoach, S. Das, B. Natarajan, X. Ou, D. Andresen, N. Schulz, G. Singh, M. S. Alam, D. Case, A. Malekpour, Daniel Wang, T. Ehlmann, G. Martin, "Holonc Multi-Agent Control of Intelligent Power Distribution Systems," *Joint JST-NSF- DFG workshop on Distributed Energy Management Systems*, Honolulu, HI, January 2014.

19. D. Steward, J. Aistrup, L. Kulcsar, J. Peterson, S. Welch, D. Andresen, E. Bernard, S. Staggenborg, and T. Bulatewicz; "An OpenMI Implementation of a Water Resources System using Simple Script Wrappers," in the poster proceedings of *American Geophysical Unions 46th annual Fall Meeting*, San Francisco, CA, December 9-13, 2013.
20. R. Feldhausen, R.S. Bell, D. Andresen, "Introducing HPC & Multithreaded Computing to Middle School Girls Using Scratch," in the poster session and online archives, *The International Conference for High Performance Computing, Networking, Storage, and Analysis (SC13)*, Denver, CO, Nov. 17-22, 2013. Accept. rate: ~40%.
21. R. Feldhausen, R.S. Bell, D. Andresen, "Engaging Students in STEM Fields through High Performance Computing," poster session, OSCER Supercomputing Symposium, Norman, OK, October 1-2, 2013.
22. R. Feldhausen, R.S. Bell, D. Andresen, "Engaging Students in STEM Fields through High Performance Computing," student poster session, 3rd Place Winner in the Student Poster Competition, *ASEE Midwest Section Annual Conference*, Salina, Kansas, September 18-20, 2013.
23. T. Bulatewicz, D. Andresen, S. Auvenshine, J. Peterson, D. Steward, "A Distributed Data Component for the Open Modeling Interface," poster session and talk, *The International ACM Symposium on High-Performance Parallel and Distributed Computing (HPDC'13)*, New York City, June 17-21, 2013.
24. A. Pahwa, S. A. DeLoach, S. Das, B. Natarajan, X. Ou, D. Andresen, N. Schulz, G. Singh, "Holonc Multi-Agent Control of Power Distribution Systems of the Future," *CIGRE Grid of the Future Symposium*, Kansas City, MO, Oct. 28-30, 2012.
25. D. Andresen, "Beocat: Providing Computational Support for the K-State Research Community," poster session, Oklahoma Supercomputing Symposium, Norman, OK, October 1-2, 2012.
26. D. Andresen, W. Dodds, L. Krishtalka, Y. Luo, D. McMullen, M. Palmer, X. Xiao, M. Yuan, "The CyberCommons: Cyberinfrastructure for Understanding and Forecasting Ecological Change in the Central Plains Grasslands," poster session, Oklahoma Supercomputing Symposium, Norman, OK, October 1-2, 2012.
27. D. Andresen, W. Dodds, L. Krishtalka, Y. Luo, D. McMullen, M. Palmer, X. Xiao, M. Yuan, "The CyberCommons: Cyberinfrastructure for Understanding and Forecasting Ecological Change in the Central Plains Grasslands," poster session, Great Plains Network (GPN) Annual Meeting, Kansas City, MO, May 30-June 1, 2012.
28. D. Andresen, "Beocat: Providing Computational Support for the K-State Research Community," poster session, Oklahoma Supercomputing Symposium, Norman, OK, October 11-12, 2011.

29. D. Andresen, W. Dodds, L. Krishtalka, Y. Luo, D. McMullen, M. Palmer, X. Xiao, M. Yuan, "The CyberCommons: Cyberinfrastructure for Understanding and Forecasting Ecological Change in the Central Plains Grasslands," poster session, Oklahoma Supercomputing Symposium, Norman, OK, October 11-12, 2011.
30. D. Andresen, "Beocat: Providing Computational Support for the K-State Research Community," poster session, Cybercommons Annual Symposium, Norman, OK, September 30, 2011.
31. D. Andresen, W. Dodds, L. Krishtalka, Y. Luo, D. McMullen, M. Palmer, X. Xiao, M. Yuan, "The CyberCommons: Cyberinfrastructure for Understanding and Forecasting Ecological Change in the Central Plains Grasslands," poster session, Cyberinfrastructure in the EPSCoR's Workshop, Arlington, Virginia, October 7-8, 2010.
32. D. Andresen, W. Dodds, L. Krishtalka, Y. Luo, D. McMullen, M. Palmer, X. Xiao, M. Yuan, "The CyberCommons: Cyberinfrastructure for Understanding and Forecasting Ecological Change in the Central Plains Grasslands," poster session, Great Plains Network (GPN) Annual Meeting, Kansas City, MO, June 2-4, 2010.
33. D. Andresen, W. Dodds, L. Krishtalka, Y. Luo, D. McMullen, M. Palmer, X. Xiao, M. Yuan, "The CyberCommons: Cyberinfrastructure for Understanding and Forecasting Ecological Change in the Central Plains Grasslands," poster session, "Improving Observing Network Coordination: A Cyberinformatics Forum," Boulder, CO, May 17-19, 2010.
34. D. Andresen, "Beocat: Providing Computational Support for the K-State Research Community," poster session, OU Supercomputing Symposium, Norman, OK, October 6-7, 2009.
35. A. King, S. Proctor, D. Andresen, J. Hatcliff, S. Warren, W. Spees, R. Jeyley, S. Weininger, "Demonstration of a Medical Device Integration and Coordination Framework," in the Research Demonstration Track of the *Proceedings of the 31st International Conference on Software Engineering (ICSE 2009)*, (Poster + 2-page paper), Vancouver, Canada, May 16-24, 2009. Acceptance rate: 58%.
36. B.J. White, S. Dissanayake, D. Andresen, D.R. Steward, L. Vogel "Utilization of wireless accelerometers and temperature sensors to evaluate internal truck environment during cattle transport," International Symposium on Beef Cattle Welfare, Manhattan, KS, May 28-30, 2008.
37. Steve Warren, Seth Hoskins, Dan Wilson, Tammi Hildreth, Howard Erickson, David Poole, Brad White, Daniel Andresen, "Veterinary Telemedicine: Wearable and Wireless Systems for Cattle Health Assessment," International Symposium on Beef Cattle Welfare, Manhattan, KS, May 28-30, 2008.
38. T. Bulatewicz, J. Peterson, D. Steward, E. Bernard, D. Andresen, and S. Welch, "Exploring ecological change in a virtual landscape," First Annual Kansas EPSCoR Ecoforecasting Meeting, Manhattan, KS, April 21, 2007.

39. Steve Warren, Luke Nagl, Scott Schoenig, Balakumar Krishnamurthi, Tammi Hildreth, Howard Erickson, David Poole, Mark Spire, Daniel Andresen, "Veterinary Telemedicine: Wearable and Wireless Systems for Cattle Health Assessment," Tenth Annual Meeting & Exposition of the American Telemedicine Association, Denver, Colorado, April 17-20, 2005. Abstract published in *Telemedicine and e-Health*, Vol. 11, No. 2, April 2005, pp. 264-265.
40. TS Hildreth, L Nagl, S Warren, HH Erickson, R Schmitz, J Yao, L Nagl, R Kollarapu, and D Andresen, Integration of Biomedical Sensors with via Telemetry and Computer Technology for Cattle Health Monitoring, Conference of Research Workers in Animal Diseases (CRWAD), Chicago, IL, Nov. 9-11, 2003. (Winner: 2003 CRWAD Graduate Student Abstract Presentation Awards, Biosafety and Biosecurity division)
41. D. Andresen, M. Neilsen, G. Singh, P. Kalita, M. Hirschi, "DHARMA: Domain-specific Metaware for Hydrologic Applications," in the *Poster Proceedings of the Twelfth IEEE International Symposium on High-Performance Distributed Computing (HPDC '03)*, Seattle, WA, June 22-24, 2003.
42. Hildreth, Tammi, Steve Warren, Howard Erickson, David Poole, Ryan Schmitz, Jianchu Yao, Luke Nagl, Ravi Kollarapu, and Daniel Andresen. "Veterinary Telemonitoring for Disease Prevention in Cattle Herds," Cattlemen's Day, Kansas State University, Manhattan, KS, March 7, 2003. (conference poster presentation)
43. D. Andresen, Graduate Student's Survival Guide, Dept. of Computer Science, UCSB, 1994.

* The acceptance rate is shown if it has been provided by the editors.

PROFESSIONAL ACTIVITIES

Editorial Boards

- Guest Editor, Intl. Journal of Foundations of Computer Science, special issue on irregular computation, 2000.
- Review Board, Intl. Journal of Next-Generation Computing, 2009 - present
- Guest Editor, Journal of Parallel and Cloud Computing, special issue on supercomputing, September, 2015.

Paper Refereeing

- *Journals:* Applied Soft Computing Journal, Engineering Applications of Artificial Intelligence, ACM Transactions on Embedded Computing Systems, IEEE Transactions on Mobile Computing, ACM Crossroads(2), IEEE Internet Computing, IEEE Transactions on Parallel and Distributed Systems, Concurrency: Practice and Experience, Intl. Journal of Foundations of Computer Science, Parallel Processing Letters, Journal of Parallel and Distributed Computing, IEEE Transactions on Computers, IEEE Transactions on Multimedia, International Journal of Computers and Applications, Computer Methods and Programs in Biomedicine, Computers in Agriculture, Environmental Modeling and Software, IEEE Transactions on Services Computing, Journal of Supercomputing.
- *Conferences:* EMBC'26(2), ICA3PP'25, EMBC'25(3), ADVCOMP'24, ICA3PP'24(2), ISPA'23(2), EMBC'23(2), EAAI'23, ICA3PP'22(6), EMBC'22(2), CIT 2021(3), ICSEA 2021(2), CSE'20(3), ADVCOMP'20, ICSEA 2020, PEARC20(6), IMCIC 2020(2), ICSEA 2019, PEARC'19(18), EMBC'19(3), IMCIC 2019, ADVCOMP'18, ICA3PP'18(5), INFOCOMP'18, PEARC'18(7), EMBC'18(2), EMBS BHI'18(3), ISPA'17(4), ADVCOMP'17, ICSEA'17(2), FCST-17(2), INFOCOMP'17, IMCIC 2017(2), ICA3PP'16(2), ADVCOMP'16, XSEDE'16(11), BMIC'16(2), EMBC'16(3), InfoComp'16, BHI-2016(2), IMCIC 2016(2), ICA3PP 2015(6), EMBC'15(3), BMIC'15, XSEDE'15 (11), ADVCOMP'15, InfoComp'15, IMCIC(2), BMIC'14, INFOCOMP'14, XSEDE'14 (19), IMCIC'14, CIT'13(6), HPCC'13(7), EMBC'13(3), EMBC'12(2), EMBC'11(3), CIT'11(2), BMIC'11(2), BMIC'10, EMBC'10(2), CIT'10(4), CSE'09 (3), EMBC'09 (2), PDCN'08, CIIT'07 (2), PDCN'06 (3), CIIT'06(5), WTAS'06 (6), CCN'06(5), CIIT'05 (3), CCN'05, WTAS'05, ICPP'04 (4), IC'01(4), ICEC'01(2), IPDPS'01, IC'2000(3), HPDC'00, IPDPS'00, HIPC98, Irregular99 IPPS96, IPPS97, IPPS98, International Conference on Parallel Processing, IEEE Symposium on Parallel and Distributed Processing, EuroPar96, HiPC '96, Workshop on Distributed Multimedia Systems, SPAA96, SPAA97, SIROCCO97, Irregular'96.
- *Other:* USDA, Maryland Industrial Partnerships Program (MIPS), Israeli Ministry of Science and Technology.

Review Boards

- NSF grant review panels: February, 2001; February, 2002; February, 2004; November, 2007; February, 2008; July, 2008, November, 2008; May, 2009; June, 2009; May, 2010, February, 2011; May, July, 2012; May, 2013; November, 2013; April, 2015; August, 2017; August, 2019; April, 2021, January, 2026.
- NIH Review committee: October, 2014; October, 2016; June, 2020; January, 2021; June, 2021, January, 2026.

Organizing Activities

- Local organizing committee member, Irregular'96, Santa Barbara, August, 1996.
- Program committee member, publicity chair, session chair, Irregular'99, San Juan, Puerto Rico, April, 1999.
- International program committee member, 2000 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'2000), Las Vegas, June 26-29, 2000.
- Organizer and program chair, First Workshop on Scalable Web Services, The 29th International Conference on Parallel Processing (ICPP 2000), Toronto, Canada, August 21-24, 2000.
- Program Committee member, The 1st International Conference on Internet Computing (IC'2000), Las Vegas, Nevada, June 26-29, 2000.
- Session chair, International Parallel and Distributed Processing Symposium (IPDPS 2000), Cancun, Mexico, May 1-3, 2000.
- Program committee member, The First International Workshop on Internet Computing and E-Commerce (ICEC 2001), to be held in conjunction with the International Parallel and Distributed Processing Symposium (IPDPS 2001), San Francisco, California, May, 2001.
- International program committee member, 2001 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'2001), Las Vegas, June 25-28, 2001.
- Program Committee member, The Second International Conference on Internet Computing (IC'2001), Las Vegas, Nevada, June 25-28, 2001.
- Session chair, ASEE Midwest Section Conference, Manhattan, KS, March 9, 2001.
- Program committee member, The Second International Workshop on Internet Computing and E-Commerce (ICEC'02), to be held in conjunction with the International Parallel and Distributed Processing Symposium (IPDPS'02).
- International program committee member, 2002 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'2002), Las Vegas, June 24-27, 2002.

- Program Committee member, The Third International Conference on Internet Computing (IC'2002), Las Vegas, Nevada, June 24-27, 2002.
- Program Committee member, AAAI/KDD/UAI-2002 Joint Workshop on Real-Time Decision Support and Diagnosis Systems, Edmonton, Alberta, Canada, 29 July 2002.
- Session chair, IASTED Parallel and Distributed Computing and Systems (PDCS 2002), Cambridge, USA, November 4-6, 2002.
- International program committee member, 2003 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'2003), Las Vegas, June 23-26, 2003.
- Program Committee member, The Fourth International Conference on Internet Computing (IC'2003), Las Vegas, June 23-26, 2003.
- Session Chair, IASTED Parallel and Distributed Computing and Systems (PDCS'03), Marina Del Rey, CA, November, 2003.
- Program Committee member, 2004 INTERNATIONAL CONFERENCE ON PARALLEL PROCESSING (ICPP-04), Montreal, Quebec, Canada Aug. 15-18, 2004.
- International program committee member and session chair, 2004 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'2003), Las Vegas, June 21-24, 2004.
- Program Committee member, The Fifth International Conference on Internet Computing (IC'2004), Las Vegas, June 21-24, 2004.
- International program committee member, IASTED International Conference on Communications and Computer Networks (CCN 2005), Marina Del Rey, CA, October 24-26, 2005.
- International program committee member, IASTED International Conference on Communications, Internet and Information Technology (CIIT 2005), Cambridge, USA, October 31-November 2, 2005.
- International program committee member and session chair, IASTED International Conference on Web Technologies, Applications, and Services (WTAS 2005), Calgary, Canada, July 4-6, 2005.
- International program committee member, the 2005 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'05), Las Vegas, NV, June 27-30, 2005.
- International program committee member, the 2005 International Conference on Internet Computing (ICOMP'05), Las Vegas, NV, June 27-30, 2005.
- International program committee member, the 2005 International Symposium on Web Services and Applications (ISWS'05), Las Vegas, NV, June 27-30, 2005.

- International program committee member, the 2005 International Conference on Grid Computing and Applications (GCA'05) Las Vegas, NV, June 27-30, 2005.
- International program committee member, The 2006 International Conference on Semantic Web & Web Services (SWWS'06) Las Vegas, NV, June 26-29, 2006.
- International program committee member, the 2006 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'06), Las Vegas, NV, June 26-29, 2006.
- International program committee member, the 2006 International Conference on Grid Computing and Applications (GCA'06), Las Vegas, NV, June 26-29, 2006.
- International program committee member, the 2006 International Conference on Internet Computing (ICOMP'06), Las Vegas, NV, June 26-29, 2006.
- Session chair, the 2006 International Conference on Semantic Web & Web Services (SWWS'06) Las Vegas, NV, June 26-29, 2006.
- Program committee member, IASTED International Conference on Parallel and Distributed Computing and Networks (PDCN 2007), Innsbruck, Austria, February 13-15, 2007.
- International program committee member, the 2007 International Conference on Internet Computing (ICOMP'07), Las Vegas, NV, June 25-28, 2007.
- Program committee member, IASTED International Conference on Parallel and Distributed Computing and Networks (PDCN 2008), Innsbruck, Austria, February 12-14, 2008.
- International program committee member, the 2008 International Conference on Grid Computing and Applications (GCA'08) Las Vegas, NV, July 14-17, 2008.
- International program committee member, the 2008 International Conference on Semantic Web & Web Services (SWWS'08) Las Vegas, NV, July 14-17, 2008.
- International program committee member, the 2008 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'08), Las Vegas, NV, July 14-17, 2008.
- International program committee member, the 2008 International Conference on Internet Computing (ICOMP'08), Las Vegas, NV, July 14-17, 2008.
- Organizing committee, Great Plains Network Cyberinfrastructure Summit Meeting, Kansas City, MO, December 12, 2008.
- Program Committee, GPN Annual Meeting, Kansas City, MO, May 28-29, 2009.

- Program Committee, IEEE International Conference on Computational Science and Engineering (CSE-09), Vancouver, BC, August 29-31, 2009.
- Session organizer and co-chair, ACM Local Chapter Enhancement & Organization, OU Supercomputing Symposium, Norman, OK, October 6-7, 2009.
- Program Committee, 1st IET International Conference on Frontier Computing (FC'10), Taichung, Taiwan, August, 2010.
- Int'l. Program Committee, 10th IEEE International Conference on Computer and Information Technology (CIT-10), Bradford, UK, 29 June - 1 July, 2010.
- International program committee member, the 2010 International Conference on Grid Computing and Applications (GCA'10) Las Vegas, NV, July 12-15, 2010.
- International program committee member, the 2010 International Conference on Semantic Web & Web Services (SWWS'10) Las Vegas, NV, July 12-15, 2010.
- International program committee member, the 2010 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'10), Las Vegas, NV, July 12-15, 2010.
- International program committee member, the 2010 International Conference on Internet Computing (ICOMP'10), Las Vegas, NV, July 12-15, 2010.
- Program Committee, GPN Annual Meeting, Kansas City, MO, June 2-4, 2010.
- Program Committee, GPN Annual Meeting, Kansas City, MO, June 2-4, 2011.
- Program committee, 11th IEEE International Conference on Computer and Information Technology (CIT-11) Cyprus, August 31 - September 2, 2011.
- International program committee member, the 2011 International Conference on Grid Computing and Applications (GCA'11) Las Vegas, NV, July 18-21, 2011.
- International program committee member, the 2011 International Conference on Semantic Web & Web Services (SWWS'11) Las Vegas, NV, July 18-21, 2011.
- International program committee member and session chair, the 2011 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'11), Las Vegas, NV, July 18-21, 2011.
- International program committee member, the 2011 International Conference on Internet Computing (ICOMP'11), Las Vegas, NV, July 18-21, 2011.
- Program Committee, GPN Annual Meeting, Kansas City, MO, June 2-4, 2011.

- Program committee, 11th IEEE International Conference on Computer and Information Technology (CIT-11) Cyprus, August 31 - September 2, 2011.
- Program Committee, GPN Annual Meeting, Kansas City, MO, June 1-3, 2012.
- International program committee member, the 2012 International Conference on Grid Computing and Applications (GCA'12) Las Vegas, NV, July 16-19, 2012.
- International program committee member, the 2012 International Conference on Semantic Web & Web Services (SWWS'12) Las Vegas, NV, July 16-19, 2012.
- International program committee member and session chair, the 2012 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'12), Las Vegas, NV, July 16-19, 2012.
- International program committee member, the 2012 International Conference on Internet Computing (ICOMP'12), Las Vegas, NV, July 16-19, 2012.
- Member, Arkansas CI-TRAIN External Advisory Committee, Fayetteville, AR, August 13-14, 2012.
- Program committee member, GPN "Big Data" workshop, Fall, 2012.
- Committee member, IMLS Lifecycle Management for Research Data Research Group, Fall, 2012.
- Program Committee, panelist, session chair, GPN Annual Meeting, Kansas City, MO, May 28-30, 2013.
- Program committee member, 15th IEEE International Conference on High Performance Computing and Communications (HPCC 2013), Zhangjiajie, China, November 13-15, 2013.
- External Advisory Committee member, NSF MRI "MRI: Acquisition of a High Performance Compute Cluster for Multidisciplinary Research", Oklahoma State University, Stillwater, OK, August 19, 2013.
- Member, Collaborative Data Lifecycle Project Working Group (with KU, Greater Western Library Alliance, and GPN), September, 2013.
- Program committee, The Fourth International Conference on Advanced Communications and Computation (INFOCOMP 2014), Paris, France, July 20 - 24, 2014.
- Program Committee, GPN Annual Meeting, Kansas City, MO, May 30-June 1, 2014.
- Program Committee member, INFOCOMP 2015, The Fifth International Conference on Advanced Communications and Computation, Brussels, Belgium, June 21-16, 2015.
- Program Committee member, ADVCOMP 2015, The Ninth International Conference on Advanced Engineering Computing and Applications in Sciences, Nice, France, July 19-24, 2015.

- Program Committee member, poster track The Fourth Annual Extreme Science and Discovery Environment Conference (XSEDE15), St. Louis, MO, July 26-30, 2015.
- BoF co-chair, The Fourth Annual Extreme Science and Discovery Environment Conference (XSEDE15), St. Louis, MO, July 26-30, 2015.
- Committee member (and chair 3/2015-present), GPN CI Program Committee, 3/2012.
- Panel Moderator, "DATA STANDARDIZATION AND INTEGRATION", First Annual Midwest Bioinformatics Conference, Kansas City, MO, October 15-16, 2015.
- Program Committee member, The 15th International Conference on Algorithms and Architectures for Parallel Processing (ICA3PP 2015) Zhangjiajie, China, November 18-20, 2015.
- Program Committee member, INFOCOMP 2016, The Sixth International Conference on Advanced Communications and Computation, Valencia, Spain, May 22-26, 2016.
- Program Committee, GPN Annual Meeting, Kansas City, MO, June 1-2, 2016.
- Program Committee member, The First International Workshop on QoS and Energy-aware Algorithms and Protocols in Wireless and Mobile Communications (QoSE WMC 2016), Barcelona, Spain, November 13 - 17, 2016.
- Program Committee member, Third International Conference on CyberGIS and Geospatial Data Science (CyberGIS'16), Urbana, IL, July 26-28, 2016.
- Program Committee, GPN Annual Meeting, Kansas City, MO, June 5-6, 2017.
- Program Committee member, 11th International Conference on Frontier of Computer Science and Technology (FCST-2017), Exeter, UK, June 21-23, 2017.
- Program Committee member, ADVCOMP 2017, The Eleventh International Conference on Advanced Engineering Computing and Applications in Sciences, Barcelona, Spain, November 12 - 16, 2017.
- Program Committee member, The Twelfth International Conference on Software Engineering Advances (ICSEA 2017), Athens, Greece, October 8 - 12, 2017.
- Program Committee member, The 15th IEEE International Symposium on Parallel and Distributed Processing with Applications (IEEE ISPA 2017), Guangzhou, China, December 12-15, 2017.
- Program Committee member, The Eighth International Conference on Advanced Communications and Computation (INFOCOMP'18), Barcelona, Spain, July 22-26, 2018.
- Workshop Program Committee member, Panel moderator, Campus Champions 101, in conjunction with The 2018 Conference on Practice & Experience in Advanced Research Computing (PEARC'18), Pittsburgh, PA, July 22, 2018.

- Technical Program Committee member, BoF Chair, panelist, The 2018 Conference on Practice & Experience in Advanced Research Computing (PEARC'18), Pittsburgh, PA, July 22-27, 2018.
- Program Committee member, The Thirteenth International Conference on Software Engineering Advances (ICSEA 2018), Nice, France, October 14 - 18, 2018.
- Program Committee member, ADVCOMP 2018, The Twelfth International Conference on Advanced Engineering Computing and Applications in Sciences, Athens, Greece, November 18-22, 2018.
- Program Committee member, 18th International Conference on Algorithms and Architectures for Parallel Processing (ICA3PP'18), Guangzhou, China, November 15-17, 2018.
- Program Committee member, IEEE ISPA 2018 (Parallel and Distributed Processing with Applications), Melbourne, Australia, December, 2018.
- Member, U. of Oklahoma, External Advisory Committee, "MRI: Acquisition of a Regional Resource for Long-term Archiving of Large Scale Research Data Collections" (NSF grant OAC-1828567), Norman, OK, September 1, 2018-Aug. 31, 2021.
- Program Committee member, The Fourteenth International Conference on Software Engineering Advances (ICSEA 2019), Valencia, Spain, November 24-28, 2019.
- Program Committee member, ADVCOMP 2019, The Thirteenth International Conference on Advanced Engineering Computing and Applications in Sciences, Porto, Portugal, September 22-26, 2019.
- BoF Chair, Technical Program Committee member, The 2019 Conference on Practice & Experience in Advanced Research Computing (PEARC'19), Chicago, IL, July 28- Aug 1, 2019.
- Program Committee member, 19th International Conference on Algorithms and Architectures for Parallel Processing (ICA3PP'19), Melbourne, Australia, December 9-11, 2019.
- Program Committee member, 9th International Conference on Intelligent Computing and Applications (ICICA 2020), Brisbane, Australia, February 24-27, 2020.
- Program Committee member, GPN Annual Meeting, Kansas City, MO, May 30-June 1, 2020.
- Program Committee member, ADVCOMP 2020, The Fourteenth International Conference on Advanced Engineering Computing and Applications in Sciences, Nice, France, July 26-30, 2020.
- Program Committee member, INFOCOMP 2020, The Tenth International Conference on Advanced Communications and Computation, Rome, Italy, September 27-October 1, 2020.
- Program Committee member, The Fourteenth International Conference on Software Engineering Advances (ICSEA 2020), Porto, Portugal, October 18 - 22, 2020.

- Program Committee member, The 2020 Conference on Practice & Experience in Advanced Research Computing (PEARC20) Portland, OR, July 26-30, 2020.
- Program committee member, The 23rd IEEE International Conference on Computational Science and Engineering (CSE 2020), Guangzhou, China. November 10-13, 2020.
- Program Committee member, The Eleventh International Conference on Advanced Communications and Computation (INFOCOMP'21), Valencia, Spain, May 30 - June 3, 2021.
- Program Committee member, GPN Annual Meeting, Kansas City, MO, May 30-June 1, 2021.
- Program Committee member, ADVCOMP 2021, The Fourteenth International Conference on Advanced Engineering Computing and Applications in Sciences, Barcelona, Spain, October 3–7, 2021.
- Technical Program Committee member, 20th International Conference on Computer and Information Technology (CIT-2021), London, UK, December 20–22, 2021.
- Program Committee member, 22nd International Conference on Algorithms and Architectures for Parallel Processing (ICA3PP'22), Copenhagen, Denmark (Online), October 10-12, 2022.
- Program Committee member, 23rd International Conference on Algorithms and Architectures for Parallel Processing (ICA3PP'23), Tianjin, China, October 20-22, 2023.
- Program Committee member, GPN Annual Meeting, Kansas City, MO, May 31-June 2, 2023.
- Program Committee member, The Thirteenth International Conference on Advanced Communications and Computation (INFOCOMP 2023), Nice, Saint-Laurent-du-Var, France, June 26-30, 2023.
- Program Committee member, ADVCOMP 2023, The Seventeenth International Conference on Advanced Engineering Computing and Applications in Sciences, Porto, Portugal, September 25-29, 2023.
- Technical Program Committee member, 2023 IEEE International Symposium on Parallel & Distributed Processing with Applications (ISPA23), Wuhan, China, December 21-24, 2023.
- Program Committee member, The Fourteenth International Conference on Advanced Communications and Computation (INFOCOMP'24), Venice, Italy, April 14 - 18, 2024.
- Program Committee member, The Eighteenth International Conference on Advanced Engineering Computing and Applications in Sciences (ADVCOMP 2024), Venice, Italy, September 29 - October 3, 2024.
- Program Committee member, The Nineteenth International Conference on Software Engineering Advances (ICSEA 2024), Venice, Italy, September 29 - October 3, 2024.

- Program Committee member, 24th International Conference on Algorithms and Architectures for Parallel Processing (ICA3PP'24), Macau, China, October 28-30, 2024.
- Program Committee member, The Nineteenth International Conference on Advanced Engineering Computing and Applications in Sciences (ADVCOMP 2025), Lisbon, Portugal, September 28 - October 2, 2025.
- Program Committee member, The Twentieth International Conference on Software Engineering Advances (ICSEA 2025), Lisbon, Portugal, September 28 - October 2, 2025.
- Program Committee member, 2025 International Conference on Algorithms and Architectures for Parallel Processing (ICA3PP'25), Zhengzhou, China, October 30 - November 30, 2025.

Research Talks/Presentations (non-conference)

- Third NSF/ARPA/NASA DLI meeting, UCSB, Santa Barbara, CA, Nov., 1995.
- NSF Alexandria Digital Library site visit, Santa Barbara, CA, March, 1996.
- Navy Research and Development (NRAD), San Diego, CA, May, 1996.
- Navy Research and Development (NRAD), San Diego, CA, Sept., 1996.
- Alexandria Advisory Board, Santa Barbara, CA, Jan., 1997.
- SoCal Parallel Meeting, Santa Barbara, CA, March, 1997.
- NSF Alexandria Digital Library site visit, Santa Barbara, CA, May, 1997.
- NSF/ARPA/NASA DLI meeting, Carnegie Mellon University, Pittsburgh, PA, June, 1997.
- SuperComputing '97 (research demonstration), Nov., 1997.
- 1998 Ronald E. McNair Heartland Research Conference (F. Blecha), Kansas City, KS, Sept., 1998.
- Annual McNair Scholars Conference (F. Blecha), Boulder, CO, March, 1998.
- KSU CIS Advisory Board, Manhattan, KS, October, 1998.
- Wind Erosion Research Unit, Manhattan, KS, April, 1999.
- Excel Corp., Wichita, KS, August, 1999.
- KSU CIS Dept. Colloquium, Manhattan, KS, October, 1999.
- KSU CIS Graduate Seminar, Manhattan, KS, January, 2000.
- CIS advisory board, Manhattan, KS, September 15, 2000.

- CIS advisory board (poster), Manhattan, KS, September 15, 2000.
- Cargill Higher Education Steering Committee, Manhattan, KS, October 20, 2000.
- Cargill/Excel IT Management team, Wichita, KS, January 19, 2001.
- Cargill/Excel IT Implementation team, Wichita, KS, January 19, 2001.
- NASA GSFC, Washington, D.C., July, 2001.
- Sprint "University of Excellence," Kansas City, KS, February 21, 2003.
- Speaker (with J. Pummill), "Championing Users – A Guide to Enabling Campus Researchers," OSCER Supercomputing Symposium, Norman, OK, October 1–2, 2013.
- Speaker, "Big Data/High Performance Computing Perspectives for Unmanned Systems," 2013 Kansas Unmanned Systems Conference, Manhattan, KS, October 14–16, 2013.

Other

- Engineering & Science Summer Institute (ESSI), two sessions June, 1998.
- KTMJ Fox 6 television news, guest expert on Internet taxation, Junction City, KS, December 15, 1999.
- Wall Street Journal, background on professors leaving for dot-coms, for WorkWeek column (4/21/2000), Dallas, TX, March 16, 2000.
- KTMJ Fox 6 television news, guest expert on impact of electronic media on traditional media, Junction City, KS, April 7, 2000.
- Engineering & Science Summer Institute (ESSI), two sessions June 1, 2000.
- KKSU radio special, guest expert on Internet-based voting, Manhattan, KS, June 14, 2000.
- Engineering Scholarship Day, display coordination and discussion of undergraduate degrees, Manhattan, KS, October 20, 2000.
- CIS Programming Contest, display coordination and discussion of undergraduate degrees, Manhattan, KS, November 1, 2000.
- Kansas State Collegian, multiple quotations in article on Internet plagiarism, Manhattan, KS, April 14, 2002.
- Women Mentoring Women, discussion of department and my research, Manhattan, KS, October 4, 2002.
- Kansas State Collegian, multiple quotations in article on computer-related health problems, Manhattan, KS, December 13, 2002.

- The Hutchinson News, quoted in article “Tangled Web” on the risks of online relationships, <http://www.hutchnews.com/past/08-08-2004/region/region1.html>, Hutchinson, KS, August 8, 2004.
- Kansas State Collegian, quoted in article “New test measures students’ technology aptitude” on technology testing for students, by Jessi Hernandez, Manhattan, KS, February 13, 2006.
- Engineering & Science Summer Institute (ESSI), two sessions May 31, 2007.
- Kansas State Collegian, quoted in article “Engineers now expected to know field, be experienced in other areas,” By Whitney Hodgin, Manhattan, KS, September 25, 2007.
- Cerner Corp., Veterinary Telemedicine, Kansas City, KS, December 2007.
- Cerner Corp., LYE Project, Manhattan, KS January 23, 2008.
- Kansas State Collegian, quoted in article “Concerns arise about speed, reliability of K-State Internet technology,” By Holly Campbell, Manhattan, KS, March 25, 2008.
- Kansas City Star, quoted in article “Server farms becoming a cash crop in the Midwest,” By Scott Canon, Kansas City, KS, April 26, 2008.
- Kansas State Collegian, quoted in article “Google introduces new operating system,” By Aaron Weiser, Manhattan, KS, July 15, 2009.
- Kansas State Collegian, quoted in article “Professors: Total Internet control by Obama impossible,” By Karen Ingram, Manhattan, KS, September 2, 2009.
- Panelist, “HPC Sustainability,” Great Plains Network (GPN) Annual Meeting, Kansas City, MO, June 2-4, 2010.
- K-State Congressional Delegation, “Midwest HPC Consortium,” Manhattan, KS, October 30, 2010.
- Kansas City Star, quoted in article “Will more streaming video overwhelm Internet?”, by Scott Canon, Kansas City, KS, November 29, 2010.
- Kansas City Star, quoted in article “For security, lock up your online life”, by Scott Canon, Kansas City, KS, December 15, 2010.
- Panelist, K-State ORSP CAREER Workshop Panel, Manhattan, KS, January 26, 2011.
- Kansas City Star, quoted in article “Supply of Internet addresses runs low”, by Scott Canon, Kansas City, KS, February 3, 2011.
- Guest lecturer, “Linking Heterogenous Models”, Water and Society course, Manhattan, KS, February 29, 2011.

- Kansas City Star, quoted in article “KCK courted Google Internet project quietly, cautiously”, by Kevin Collison, Dawn Bormann and Scott Canon, Kansas City, KS, April 2, 2011.
- Invited lecture, “Forecast: Cloudy, with Scattered Storms,” GK12 Insight Summer Institute, Manhattan, KS, June 7, 2011.
- Kansas City Star, quoted in article “Cloud computing unlocks possibilities but raises security concerns”, by Scott Canon, Kansas City, KS, June 16, 2011.
- Kansas City Star, quoted in article “Lowly texts are sometimes lost in a high-tech shuffle”, by Scott Canon, Kansas City, KS, July 31, 2011.
- Presenter, KAWSE 4-6th grade girls EXCITE day, Manhattan, KS, September 24, 2011.
- Panelist and presenter, Cybercommons Annual Symposium, Norman, OK, September 31, 2011.
- Panelist (“The Impact of OSCER on OU, Oklahoma, and Beyond”) and presenter (“The Emerging Role of the Great Plains Network in Bridging Campuses to Regional and National Cyberinfrastructure Resources”), Oklahoma Supercomputing Symposium 2011, Norman OK, October 11 - 12, 2011.
- Kansas State University press release, quoted in article “Black Friday or Cyber Monday: Consumers gain more options for holiday deals”, November 7, 2011.
- Kansas City Star, quoted in article “Google’s ‘antenna farm’ plans hint at TV service”, by Scott Canon, Kansas City, KS, February 14, 2012.
- Kansas City Star, quoted in article “‘Data farms’ draw big tax breaks, incentives from states”, by Scott Canon, Kansas City, KS, February 24, 2012.
- Speaker, ORSP Data Management Plans Information Session, Manhattan, KS, May 3, 2012.
- Kansas City Star, quoted in article “Details of Google Fiber emerge: Installations could start soon”, by Scott Canon, Kansas City, KS, July 26, 2012.
- Invited session panelist, (“Research and Administrative Stakeholders (Strategic Alignment: OU, Oklahoma, and the National Agenda)”), OU IT Research CI Blue Ribbon Review, August 8, 2012.
- Panelist, K-State ORSP CAREER Workshop Panel, Manhattan, KS, March 7, 2013.
- Panelist, K-State Engineering Faculty Expectations Panel, Manhattan, KS, March 12, 2013.
- Kansas City Star, quoted in article “Google Fiber’s move to Austin, Texas, could be good for Kansas City”, by Scott Canon, Kansas City, KS, April 9, 2013.
- Kansas City Star, quoted in article and on KCMO 710AM news radio show “Microsoft brings war with Google over privacy to Kansas City”, by Scott Canon, Kansas City, KS, April 25, 2013.

- Kansas City Star, quoted in article “Google’s call for open Internet hedged in its own rules”, by Lindsay Wise, Kansas City, KS, August 1, 2013.
- Invited exhibitor, Research Technology Day, Univ. of Missouri Science and Technology, Rolla, MO, September 9-10, 2013.
- KSU news release and K-State Today, quoted in article “Collaboration brings ‘Ready Player One’ egg hunt to campus,” Manhattan, KS, October 31, 2013.
- The Mercury, mentioned in article “K-Staters share game experience,” October 31, 2013.
- HPCWire Sound Byte subject, “Podcast: The Big Data Challenges of Unmanned Systems Research,” by Nicole Hemsworth, <http://www.hpcwire.com/soundbite/big-data-challenges-unmanned-systems-research/>, February 11, 2014.
- KSU news release and K-State Today, mentioned in article “Research prevents zoonotic feline tularemia by finding influential geospatial factors,” Manhattan, KS, February 19, 2014.
- Panelist, ASEE ERC Council Annual Meeting Results Review, Kansas State University, Manhattan, KS, April 25, 2014.
- Invited speaker, “Big Data”, KCALSI Translational Medicine Meeting, Kansas State University, Manhattan, KS, April 28, 2014.
- Invited speaker, “Big Data at Different Scales”, Manhattan Knowledge Based Economic Development Big Data Event, Kansas State University, Manhattan, KS, April 28, 2014.
- Panelist, “Challenges encountered within the campus infrastructure environment”, NSF CC-NIE PI Workshop, Arlington, VA, April 30, 2014.
- K-State Today, quoted in article “Beocat extends reign as largest academic supercomputer in Kansas,” Kansas State University, May 19, 2014.
- Speaker, “Big Data from an HPC Perspective,” Big Data Summit II, in conjunction with the Great Plains Network Annual Meeting, Kansas City, MO, May 28, 2014.
- Speaker (two sessions), “Introduction to Supercomputing: Working Together,” KSU GROWE, Manhattan, KS, June 18 2014.
- The Mercury, mentioned in article “Researchers study how light interacts with matter,” August 18, 2014.
- K-State Today, topic in article “Andresen named to national supercomputing leadership team,” Kansas State University, September 15, 2014.

- Invited speaker, “Minimum Time, Maximum Effect: Introducing Parallel Computing in CS0 and STEM Outreach Activities Using Scratch,” Missouri University of Science and Technology RTD Days, Rolla, MO, September 16, 2014.
- Panelist, “Computational Cyberinfrastructure: Future Directions,” Missouri University of Science and Technology RTD Days, Rolla, MO, September 16, 2014.
- Invited speaker, “Minimum Time, Maximum Effect: Introducing Parallel Computing in CS0 and STEM Outreach Activities Using Scratch,” Oklahoma Supercomputing Exposition, Norman, OK, September 24, 2014.
- Invited speaker, “Accessible Parallelization for the Open Modeling Interface (OpenMI),” XSEDE Workflow Symposium, September 26, 2014.
- K-State Today, topic in article “Computing and information sciences professor receives National Science Foundation grant,” Kansas State University, September 26, 2014.
- Invited speaker, “Minimum Time, Maximum Effect: Introducing Parallel Computing in CS0 and STEM Outreach Activities Using Scratch,” Holland Computing Center, Lincoln, NE September 30, 2014.
- K-State Today, mentioned in article “Student teams tackle computer programming problems for prizes,” Kansas State University, October 27, 2014.
- K-State Today, mentioned in article “Programming competition draws strong field of competitors,” Kansas State University, March 5, 2015.
- Kansas State Collegian, quoted in article “3-D printing to enter science classrooms,” By Bridget Beran, Manhattan, KS, April 21, 2015.
- Invited speaker, “Research Collaborations in HPC and Big Data,” Containment Information Technology Conference, Biosafety Research Institute, Kansas State University, Manhattan, KS, May 1, 2015.
- K-State Today, mentioned in article “K-State recognized as Extreme Science and Engineering Discovery Environment national supercomputing partner,” Kansas State University, May 12, 2015. (Also featured in KSU College of Engineering Noteworthy@engg, <https://www.engg.ksu.edu/news/noteworthy/view/#2183> .)
- Kansas City Star, quoted in article “In the bandwidth-rich KC market, is Google Fiber going too far to foil digital piracy?”, by Scott Canon, Kansas City, KS, May 30, 2015.
- Agronomy Extension e-Update, mentioned in article “New soybean yield calculator app from K-State,” https://webapp.agron.ksu.edu/agr_social/eu_article.throck?article_id=635 Manhattan, KS, July 27, 2015.

- Speaker, “Big Data, Small Budget,” Oklahoma Supercomputing Exposition, Norman, OK, September 24, 2015.
- Invited exhibitor, XSEDE, Wichita State University Technology Fair, October 13, 2015.
- Panelist, KSU ORSP CAREER Workshop Panel, Manhattan, KS, November 30, 2015.
- K-State Today, mentioned in article “Engineering research project may allow future consumers to ‘buy and sell’ electricity,” Kansas State University, April 25, 2016.
- Kansas Hypercore (KanREN 100Gbps upgrade), quoted in multiple articles and in a radio interview on KMAN 1350 by Kathy Dawes. KSU Press Release “HyperCore is coming: Network upgrade offers enhanced research capacity to state’s universities,” <http://www.k-state.edu/media/newsreleases/jun16/hypercore61516.html>, and <https://www.highbeam.com/doc/1G1-455201130.html>, Topeka Capital-Journal (<http://cjonline.com/news/business/2016-06-25/business-watch-paxico-wine-brings-home-awards>), June 15, 2016.
- Invited Panelist, “‘If I Knew Then What I Know Now...’”, New Faculty Institute luncheon, Manhattan, KS, September 7, 2016.
- BoF organizer and chair (with Dana Brunson), “Birds-of-a-Feather Session: XSEDE Region 4 Campus Champions”, Oklahoma Supercomputing Symposium 2016, Norman, OK, September 21, 2016.
- BoF organizer and chair, “Birds-of-a-Feather Session: XSEDE Region 4 Campus Champions”, Coalition for Advancing Digital Research & Education (CADRE), Stillwater, OK, April 11-12, 2017.
- BoF organizer and chair (with Dana Brunson), “Birds-of-a-Feather Session: XSEDE Region 4 Campus Champions”, GPN Annual Meeting, Kansas City, MO, June 5-6, 2017.
- Mentioned in “K-State-led team earns \$10.6 million grant for brain research highlights a new center to study neural plasticity”, and my involvement in leading the neuroinformatics core.” See the press release, “Team receives nearly \$11 million COBRE grant to establish neuroscience research center.” (<http://www.k-state.edu/media/newsreleases/2017-07/cobre72617.html>) Manhattan Mercury (http://themercury.com/news/k-state-led-team-earns-million-grant-for-brain-research/article_72dac418-efee-5011-8906-e34034a1a150.html), Manhattan, KS, July 27, 2017.
- BoF organizer and chair (with Dana Brunson), “Birds-of-a-Feather Session: XSEDE Region 4 Campus Champions”, Oklahoma Supercomputing Symposium 2017, Norman, OK, September 27, 2017.

- Invited speaker, “CaaS: Ceph as a Service,” Great Plains Network booth, International Conference for High Performance Computing, Networking, Storage and Analysis (SC’17), Denver, CO, November 15, 2017.
- Invited speaker, “Suboptimal Optimization Techniques for HPC,” NIH COBRE C-NAP center group meeting, Kansas State University, Manhattan, KS, December 6, 2017.
- K-State Today, quoted in article “Beocat regains title as largest academic supercomputer in Kansas,” Kansas State University, Manhattan, KS, December 6, 2017.
- K-State Today, mentioned in article “Computer scientists to study application of big data for improved disaster management and response,” Kansas State University, Manhattan, KS, January 10, 2018.
- The Mercury, “TOP CAT K-State’s Beocat regains title of largest state academic supercomputer,” on the front page, quotes me and highlights Beocat and its impact at K-State. Manhattan, KS, February 9, 2018.
- Featured in CS newsletter article “Computer scientists to study application of big data for improved disaster management and response,” Manhattan, KS, April 10, 2018. (<https://www.k-state.edu/media/newsreleases/2018-01/csgrant11018.html>)
- BoF organizer and chair, “Birds-of-a-Feather Session: XSEDE Region 4 Campus Champions”, Coalition for Advancing Digital Research & Education (CADRE), Stillwater, OK, April 17-18, 2018.
- BoF organizer and chair (with Dana Brunson), “Birds-of-a-Feather Session: XSEDE Region 4 Campus Champions”, GPN Annual Meeting, Kansas City, MO, May 30-June 1, 2018.
- BoF organizer and chair, “Birds-of-a-Feather Session: XSEDE Region 4 Campus Champions”, Oklahoma Supercomputing Symposium 2018, Norman, OK, September 26, 2018.
- Interviewed for news piece “Kansas to Receive Rural Broadband Expansion Grants” by Madeline Fox, Kansas Public Radio, regarding rural broadband. (<https://kansaspublicradio.org/kpr-news/kansas-receive-rural-broadband-expansion-grants>). Also referenced in “Boondocks Broadband” by Scott Canon (<http://www.wvik.org/post/noonletter-oct-4-2018>). October 4, 2018.
- Interviewed by Kansas Public Radio on the impact of a pending FCC vote on 5G wireless licensing on rural broadband, which was heard statewide on NPR stations. October 22, 2018.
- K-State Today, quoted in article “Kansas interagency cooperation finds computer equipment new home, will boost research and education across the state,” Kansas State University, Manhattan, KS, February 20, 2019, and “State donates \$10M in unused computer equipment to Kansas State University,” Topeka Capitol-Journal, (<https://www.cjonline.com/news/20190220/state-donates-10m-in-unused-computer-equipment-to-kansas-state-university>), Topeka, KS, February

21, 2019. Also discussed in “K-State receives \$10M in technology from state,” The Manhattan Mercury (http://themercury.com/news/education/k-state-receives-m-in-technology-from-state/article_c8b92f52-b1e2-5ba9-9ade-978a143e7fc1.html), Manhattan, KS, February 21, 2019; and “

- K-State Collegian, quoted in article “Ask a Professor: Who inspires you?”, Olivia Rogers, Manhattan, KS, February 21, 2019. (<https://www.kstatecollegian.com/2019/02/19/ask-a-professor-who-inspires-you/>)
- DatabaseStar, quoted in article “130 Computer Science Faculty Share Their Advice for New CS Students,” Ben Brumm, March 6, 2019. <https://www.databasestar.com/cs-student-advice/>
- Invited participant as emerging national cyberinfrastructure leader, Cyberinfrastructure Leadership Academy, Norman, OK, February 26-27.
- Invited speaker, “The Neuroinformatics Core,” NIH COBRE C-NAP center group meeting, Kansas State University, Manhattan, KS, April 3, 2019.
- Invited speaker, “Making mountains out of molehills: Challenges for implementation of cross disciplinary research in the big data era,” Supercomputing and Life Sciences Symposium 2019, University of Nebraska, Lincoln, NE, April 17, 2019.
- Invited speaker, “Making mountains out of molehills: Challenges for implementation of cross disciplinary research in the big data era,” GPN Annual Meeting, Kansas City, MO, May 21–23, 2019.
- Panel moderator, GPN Annual Meeting, Kansas City, MO, May 21–23, 2019.
- Invited speaker, “Making mountains out of molehills: Challenges for implementation of cross disciplinary research in the big data era,” Merrill Research Retreat, Nebraska City, NE, July 10-12, 2019.
- Mentioned in press release “Mizzou Engineer leads regional research computing effort,” Columbia, MO, July 18, 2019. <https://engineering.missouri.edu/2019/07/mizzou-engineer-leads-regional-research-computing-effort/>
- K-State Collegian, featured in article “Faster than Fiber: K-State supercomputer powers research across disciplines,” Manhattan, KS, September 18, 2019. <https://www.kstatecollegian.com/2019/09/17/faster-than-fiber-k-state-supercomputer-powers-research-across-disciplines/>
- BoF organizer and chair (with BJ Lougee), “Birds-of-a-Feather Session: XSEDE Region 4 Campus Champions”, Oklahoma Supercomputing Symposium 2019, Norman, OK, September 25, 2019.
- Invited speaker (with Ryan Otto), “Big Data Management on Beocat,” KSU Department of Psychological Sciences Brown Bag Lunch, Manhattan, KS, September 27, 2019.

- Invited speaker, "Beocat challenges – What it can do today, what it can't do today, and the future of big data computational needs," Global Food Systems Big Data Workshop, Kansas State University, Manhattan, KS, October 15, 2019.
- Mentioned in press release "K-State teams place in regional Association for Computing Machinery programming contest," Manhattan, KS, January 3, 2020. <https://www.k-state.edu/today/announcement/?id=60158>
- Mentioned in press release "NSF renews K-State CyberCorps program for five years, \$3 million," Manhattan, KS, June 3, 2020. <https://www.k-state.edu/media/newsreleases/2020-06/cybercorps-nsf6320.html>
- Focus of press release "Computer science professor to head NSF-funded open science grid expansion across Great Plains," Manhattan, KS, July 10, 2020. <https://www.k-state.edu/media/newsreleases/2020-07/andresen-nsf-great-plains-award71020.html>
- Invited speaker (with Kari Payne), "Using Beocat OpenOnDemand & R," KSU Department of Psychological Sciences Brown Bag Lunch, Manhattan, KS, September 2, 2020.
- Invited speaker, "Beocat challenges – What it can do today, what it can't do today, and the future of big data computational needs," Global Food Systems Big Data Workshop,
- Panelist, The Quilt NSF CC* Seminar - Campus Compute Components, virtual, September 14, 2020.
- Kansas Public Radio, quoted in article and radio interview "How Elon Musk and a Mission to Mars Might Boost Internet Speeds in Rural Kansas," by David Condos, February 2, 2021. Article: <https://kansaspublicradio.org/kpr-news/how-elon-musk-and-mission-mars-might-boost-internet-speeds-rural-kansas>, Audio: https://ondemand.kansaspublicradio.org/mp3/020121_dc_ruralsatelliteintern-859989406.mp3
- Invited Speaker, "Introduction to Beoshock," Wichita State Analytics Showcase, Wichita, KS, November 11, 2021.
- Invited Speaker, NSF CC* PI Workshop, "CC* Compute: GP-ARGO: The Great Plains Augmented Regional Gateway to the Open Science Grid," Minneapolis, MN, September 19-21, 2022.
- Speaker (with James Deaton), Internet2 Technology Exchange 2022, Research Engagement Track, "Teaming up for CI and Achieving High Throughput in the Great Plains," Denver, CO, December 5-9, 2022.
- Quoted in case study "Accelerating life-changing research through open science – Great Plains Network:How the GP-ARGO project is speeding up research that's vital to ensuring food security," December 16, 2022, <https://www.hpe.com/psnow/doc/a50007232enw>.

- Invited speaker, “Teaming up for CI and Achieving High Throughput in the Great Plains”, 2023 Spring OAK Supercomputing Conference, Stillwater, OK, April 4-7, 2023.
- Invited speaker, “The Great Plains Network and the OSG Consortium,” Throughput Computing 23 (HTC 23), Madison, WI, July 10-14, 2023.
- Open Science Grid Spotlight, quoted in article “Great Plains Regional CyberTeam Expanding Capacity for Computing from Great Plains Campuses,” by Hannah Cheren, October 24, 2023. <https://osg-htc.org/spotlights/gpargo-cc-star.html>
- Speaker, NSF grantwriting tips and techniques, 2024 Spring OAK Supercomputing Conference, Wichita, KS, 5/20/2024.
- Invited speaker, NSF grantwriting tips and techniques, GPN Annual Meeting, Lincoln, NE, 6/10/2024.
- Speaker, “How Central IT and Researchers Together Can Secure Government Cyberinfrastructure Grants,” EDUCAUSE, San Antonio, TX, 10/22/2024.
- Invited Panelist, “Low Cost Solutions for Hardware,” Becoming an Institution-level Cyberinfrastructure Leader Workshop 2025, University of Oklahoma, August 6-7, 2025

Memberships

- ACM 1997-present
- ACM SIGCOMM 1997-present
- ACM SIGARCH 1997-present
- ACM SIGHPC 2012 - present
- ACM SIGHPC Education Chapter 2014-present
- IEEE/CS 1998-2019
- National Computing Grid Forum 1999-present
- IEEE Task Force on Cluster Computing 1999-2019
- IEEE Communications Society 2005-2019
- Electronic Frontier Foundation (EFF) 1999-present
- American Society for Engineering Education 2000-present
- USENIX 2000-present
- IASTED 2003-present

- Heartland Renewable Energy Society 2005-present
- EDUCAUSE Advanced Core Technologies Initiative (ACTI) Campus Cyberinfrastructure Group 2011-present

UNIVERSITY ACTIVITIES

Grants Funded

1. Co-PI, NSF (Award no. OAC-2322218, 7/23 - 6/2025), "CC* Regional Computing: Great Plains Extended Network of GPUs for Interactive Experimenters (GP-ENGINE)," \$981,182 June, 2023.
2. Co-PI, NIH/HHS SBIR(subward to 1R44DA058531-01, 4/23 - 3/24), "BoostPrime: A Novel Digital Therapeutic for Craving Mitigation in OUD," \$30,351 April, 2023.
3. Co-PI and Neuroinformatics Core director, NIH (P20GM113109, 7/2022 - 7/2027), Cognitive and Neurobiological Approaches to Plasticity (C-NAP) Center of Biomedical Research Excellence (COBRE) Phase 2, \$11.2M July, 2022.
4. Senior Person, NIH (Award no. 2R01MH085739-10A1, 9/2021-6/2026), "'Timing, Reward Processing and Choice," \$1.9M September, 2021.
5. Co-PI, NASA/National Council on Radiation Protection and Measurements (Award no. 80NSSC19M0161 P00004, 5/19-9/26), "Analytical and Computational Support for Evaluation of Dementia and Neurocognitive Tests among Workers Exposed to Low-LET Radiation," \$438,730 September, 2021.
6. Co-PI and Neuroinformatics Core director, NIH (P20GM113109, 7/2017 - 7/2022), Cognitive and Neurobiological Approaches to Plasticity (C-NAP) Center of Biomedical Research Excellence (COBRE) Administrative Supplement, \$118,156 July, 2021.
7. Co-PI, NSF (Award no. DGE-1946557, 6/20-5/25), "CyberCorps SFS Renewal: Strengthening the National Cybersecurity Workforce," \$3.3M May, 2020.
8. PI, NSF (Award no. OAC-2018766, 7/20-6/23), "CC* Compute: GP-ARGO: The Great Plains Augmented Regional Gateway to the Open Science Grid," \$378,599 May, 2020.
9. Co-PI, NSF (Award no. OAC-1925681, 7/19-7/22), "CC* Team: Great Plains Regional CyberTeam," \$1.4M June, 2019.
10. Co-PI, NSF (Award no. IIS-1741353, 1/18-12/21), "BIGDATA: IA: Collaborative Research: Domain Adaptation Approaches for Classifying Crisis Related Data on Social Media," \$1.3M October, 2017.
11. Co-PI, NSF (Award no. CHE-1726332, 8/17-9/20), "MRI: Acquisition of a GPU-Enabled Computer Cluster for Molecular Modeling Applications," \$350,000 August, 2017.

12. Co-PI and Neuroinformatics Core director, NIH (P20GM113109, 7/2017 - 7/2022), Cognitive and Neurobiological Approaches to Plasticity (C-NAP) Center of Biomedical Research Excellence (COBRE), \$10.6M July, 2017.
13. Senior Person, National Institutes of Mental Health, R01 Project Grant, "Timing, reward processing, and choice," \$1.35M, 2016-2020.
14. Co-PI, Kansas Corn Commission (7/16-6/19), "Corn Management Decision Guiding Website and Mobile App," \$138,950 March, 2016.
15. Senior Person, NSF (Award no. CNS-1544705, 10/15-9/18), "CPS: Synergy: Architecture for Future Distribution Systems Including Active Consumers with Rooftop Solar Generation," \$700,000 October, 2015.
16. PI, NSF (Award no. ACI-1440548, 9/14-8/16), "CC-IIE Networking Infrastructure: Next-generation networking environments for biological and agricultural data-driven research at Kansas State University," \$231,500 September, 2014.
17. PI, NSF (Award no. CNS-1429316, 9/14-9/17), "MRI:Acquisition of an Adaptive Data Cluster for Data-intensive Applications in Science and Engineering," \$300,000 August, 2014.
18. Senior Person, (EPSCoR Track I, KU, KSU, UNL, Award no. IIA-1430493, 8/14-8/17), "Collaborative Research: Imaging and Controlling Ultrafast Dynamics and Atoms, Molecules, and Nanostructures," \$6M total August, 2014.
19. PI, NSF (Award no. ACI-1341026, 11/13-10/16), "CC-NIE Network Infrastructure: KGAP: Bridging the gap in network flexibility and performance for genomics and data-intensive research at Kansas State University," \$499,113 September, 2013.
20. co-PI, NSF (Award no. CNS-1224007, 9/12-8/15), "TWC TTP: Small: Security, Privacy, and Trust for Systems of Coordinating Medical Devices," \$482,125 August, 2012.
21. co-PI, NSF (Award no. DUE-1241721, 8/13-12/19, co-PI since 5/14), "Building the National Cyber Workforce: New SFS Program at Kansas State University," \$2,006,328 August, 2012.
22. co-PI, Dept. of Health and Human Services (9/11-8/14), "Development of a Prototype Healthcare Intranet for Improved Health Outcomes," \$375,000 September, 2011.
23. PI, NSF MRI (Award no. 1126709, 9/11-8/14), "MRI: Acquisition of a Hybrid GPU Computing Cluster High-End Applications in Science and Engineering," \$700,000 September, 2011.
24. Senior Person, NSF CPS (Award no. CNS-1136040, '11-'15), "Components, Run-time Substrates, and Systems: Medium: Holonic Multi-Agent Control of Intelligent Power Distribution Systems," \$1.1M September, 2011.

25. co-PI, NSF GK12 (Award no. 0948019, 3/10-3/15, co-PI since 8/13), "Infusing System Design and Sensor Technology in Education (INSIGHT)," \$2.2M March, 2010.
26. co-PI, NSF EPSCoR (Award no. 1006860), "Prairie Light: Next Generation Networking for Mid-continent Science," \$1.176M August, 2010.
27. co-PI, NSF CPS (Award no. 0932289), "CPS:Medium:Collaborative Research:Infrastructure and Technology Innovations for Medical Device Coordination," \$839,548 September, 2009.
28. Senior personnel, NSF CNH (Award no. 0909515), "Hyper-extractive Economies and Sustainability: Policy Scenarios for Sustainable Water Use in the High Plains Aquifer," \$1.5M September, 2009.
29. co-PI, NSF EPSCoR RII Track II (Award no. 0919443), "Oklahoma and Kansas: A cyberCommons for Ecological Forecasting," \$3M (\$1.5M to K-State, \$6M between KS and OK) September, 2009.
30. co-PI, NSF SIR, "Development of an Open Test-Bed for Application of Formal Methods to Plug-and-Play Medical Devices," \$55,000 September, 2007
31. co-PI, USDA, "Developing an Accessible and Comprehensive Cattle Risk Management Information Library," \$97,188 August, 2007
32. Senior personnel, NSF CI-TEAM, "CI-TEAM Demonstration Project: Cyberinfrastructure Education for Bioinformatics and Beyond," \$249,974 December, 2006.
33. Senior personnel, NSF EPSCOR, "Ecoforecasting Kansas," funded at \$6,750,000 April, 2006
34. co-PI, NSF CRI, "CRI: An Experimentation Platform for Developing Customized, Large-Scale Sensor Systems," \$200,000 March, 2006.
35. co-PI, KSU Targetted Excellence Award (w/Gurdip Singh et al), "Center for Sensors and Sensor Systems," up to \$1.5M Summer, 2005
36. co-PI, Cabem Technologies, "EKAT + GIS," \$67,000 May, 2005
37. PI, NSF REU "Veterinary Telemedicine: Proactive Herd Health Management for Disease Prevention from Farm to Market", \$12,000 May, 2005.
38. co-PI, DURIP "Parallel Analysis of Models or Distributed Real-Time Embedded Systems", \$394,991 May, 2004.
39. PI, NSF REU "Veterinary Telemedicine: Proactive Herd Health Management for Disease Prevention from Farm to Market", \$12,000 May, 2004.

40. PI, NSF ITR "Veterinary Telemedicine: Proactive Herd Health Management for Disease Prevention from Farm to Market", \$899,996 September, 2003.
41. co-PI, "Occasionally-connected RSVP," USDA, \$150,000 August, 2003.
42. co-PI, NSF EPSCoR Student Travel Award, \$428 June, 2003.
43. co-PI, NSF EPSCoR Student Travel Award, \$448 June, 2003.
44. PI, NSF ITR proposal, "Veterinary Telemedicine: Proactive Herd Health Management for Disease Prevention from Farm to Market", \$107,025 August, 2002.
45. PI, Steel and Pipe Supply Corp, Compaq DS-10, DS-20, and AlphaServer 4000 servers, \$19,100 July, 2002
46. PI, NSF REU ITR supplement, "DHARMA: Domain-Specific Metaware for Hydrologic Applications," \$10,000 July, 2002
47. co-PI, USDA, "Software Tools for Watershed Dam Design/Analysis," \$22,500 September, 2001.
48. PI, NSF CAREER, "DESPOT: Enhanced Dynamic Process Management for Beowulf Clusters on the Grid," \$222,572 August, 2001.
49. PI, KSU SLIP Mini-grant, \$120 August, 2001.
50. PI, NSF REU ITR supplement, "DHARMA: Domain-Specific Metaware for Hydrologic Applications," \$12,000 August, 2001
51. co-PI, NASA EPSCoR, "Software Architectures for Autonomous Communication System," \$120,000 May, 2001
52. co-PI, USDA, "Software Tools for Watershed Dam Design/Analysis," \$20,000 September, 2000.
53. PI, NSF ITR, "DHARMA: Domain-Specific Metaware for Hydrologic Applications," \$498,615 September, 2000.
54. PI, KSU SLIP Mini-grant, \$120 August, 2000.
55. PI, "Cargill Faculty Fellowship for Engineering," Cargill/Excel Corp., \$47,177 May, 2000.
56. co-PI, Wind River Systems, Inc., WindLink University Partner Program (non-cash), \$467,600 March, 2000.
57. PI, KSU Faculty Development Award, \$750 February, 2000.
58. co-PI, WalMart/NCR Datamining Technology Grant, NCR WorldMark 5100 (80 processors, 20GB RAM, 1.7TB disk), \$5,000,000 January, 2000.

59. co-PI, "Real Time Crop Water Management and Irrigation Scheduling Web Site," Kansas Water Resources Research Institute, \$48,500 January, 2000.
60. Senior Research Associate, "Real-Time Embedded Systems Research and Curriculum Development," NSF Proposal 9990321, \$399,096 September, 1999.
61. PI, KSU Faculty Development Award, \$500 April, 1999.
62. PI, KSU SLIP Mini-grant, \$120 August, 2000.
63. PI, "High Performance Data Mining Applications on Computer Clusters," MESA Technologies Corp., \$13,487 June, 1999.
64. PI, "Cargill Faculty Fellowship for Engineering," Cargill/Excel Corp., \$30,000 May, 1999.

Committee Memberships

- CIS Computer Infrastructure Committee (chair 2001-present) 1997-present
- College of Engineering Computer Needs Committee 1998-2003
- CIS Undergraduate Curriculum Committee 1998-2014
- CIS Undergraduate Recruitment Committee 2014-present
- College of Engineering Honors and Awards Committee 2003-2005
- K-State Online Advisory Council 2003-2006
- College of Engineering Future Computing Architecture Task Force 2004-present
- Women in Engineering and Science Program (WESP) Faculty Advisory Board 2005-present
- GIS Commons Steering Committee 2008-present
- College of Engineering Faculty Mentoring Program Task Force 2008-present
- Computer Science PPA Committee January, 2016.
- College of Engineering Promotion and Tenure Committee 2019-2022
- College of Engineering Dean Search Committee 2019-2020
- Scholarly Communication Task Force 2019-2020
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University Activities

- XSEDE Campus Champion December, 2011 - present

- XSEDE Campus Champion Leadership Team August, 2014 - January, 2020
- Developing Scholars Program mentor
- Future IT Infrastructure Project lead
- Participant, KSU College of Engineering Diversity Workshop, May 13-14, 2004.

Honor Society Memberships

- Upsilon Pi Epsilon engineering honors society 1990-1992
- Omicron Delta Kappa honors society 1988-1990
- Phi Kappa Phi honors society 1989-1990

Classes taught

- Operating Systems (CIS520): Fall '97, Spring '98, Fall '98, Fall '99, Spring '00, Fall '00, Spring '01, Fall '01, Spring '02, Fall '02, Spring '03, Fall '03, Spring '04, Fall '04, Spring '05, Fall '05, Spring '06, Fall '06, Spring '07, Spring '08, Fall'08, Spring '09, Fall '09, Fall'15, Fall'16, Spring '17, Spring '18, Spring '19, Spring '20, Spring '21, Spring '22.
- Web Interface Design (CIS526): Spring, '13, '14, '15.
- Advanced WWW Technologies (CIS726): Spring '98, '99, '00, '01, '02, '03, '04, '05, '06, '07, '08, '09, '10, Fall '10, '11, '12, '13 (co-taught with CIS526).
- Topics in Distributed Systems (CIS825): Fall, '98.
- Cybersecurity (CIS798, co-taught): Fall, '05.
- Computer Architecture (CIS450): Spring '10, '11, '12, Fall '10, '11, '12, '13, '14.
- Concurrent Computing (CIS625): Spring '09, '10, '11, '15, Fall '17, Fall'18, Fall'19, Fall'20, Fall'21, Fall'22, Fall'23.
- Software Engineering (CIS641): Fall '14, Spring '15.
- CS in Prague (Education Abroad): Spring '22, Spring '24.

ADVISING

Ph.D. Major Professor: Scott Hutchinson, Mohammed Tanash, Hao Qian.

Ph.D. Committee Member: Over 40

Ph.D. Outside Committee Chair: Yue Jiao (Industrial Engineering, 2003), Hamed Ghazali (Education, 2003), Yan Ling (Statistics, 2008), Siddharth Deshmukh (EECE, 2013).

M.S. and M.S.E. Major Professor: Over 140.

M.S. and M.S.E. Committee Member : Over 150.

McNair Scholars Program Frank Blecha.

Kansas NSF EPSCoR Summer Research Internship Roland Craddolph.

Developing Scholars Andrea Mesa.

Campus organizations Google at K-State faculty advisor, Christian Challenge faculty advisor, Developing Scholars Program mentor, McNair Scholars Program mentor, Local ACM chapter faculty advisor.