

RESUME
January 1986

NAME: Elizabeth A. Unger

ADDRESS:
3009 Wayne Drive
Manhattan, Kansas 66502

POSITION:
Professor
Department of Computer Science
Kansas State University
Manhattan, Kansas 66506

TELEPHONE:
Office (913) 532-6350
Home (913) 539-6594

EDUCATION:
1961 B.S. Mechanical Engineering
Michigan State University
1963 M.S. Mathematics
Michigan State University
1978 Ph.D. Computer Science
University of Kansas

PROFESSIONAL EXPERIENCE:

Employment:
1982 Prof., KSU Computer Science Dept.
1978 - 1982 Assoc. Prof., KSU Computer Science Dept.
1969 - 1978 Asst. Prof., KSU Mathematics, Statistics, & Computer Science Dept.
1970 - 1974 Assoc. Director, KSU Computing Center
1969 - 1970 Acting Director, KSU Computing Center
1969 Assoc. Director, KSU Computing Center
1967 - 1969 Asst. Director, KSU Computing Center
1966 - 1967 Chief Programmer, KSU Computing Center
1963 - 1966 User Services Supervisor and Librarian Michigan State University
1961 - 1963 Graduate Asst., Michigan State Univ.
1958 - 1962 Applied Science Student Trainee, IBM, Lansing, Michigan
1957 - 1959 Laboratory Asst., Michigan State Univ.

Reviewer:

ACM (Computing Reviews)
ACM (Small and Personal Computers)
ACM (Computer Science and Education)
Benjamin Cummings Publishing Co.
Charles Merrill Publishing Co.
Addison Wesley Publishing Co.
Prindle, Weber, Schmidt Publishers
McGraw Hill Publishing Co.

KSU Service:

1986
1984
1983
1983
1983 - 1986
1983 - 1986
Department Seminar Chair
Arts & Sciences Dean Advisory Committee
1982
1982
Search Committee, Head of Electrical Engineering
A & S Dean Evaluation Committee
1982 - 1984
1982 - 1984
Chairman Graduate Studies Committee for Department of Computer Science
1982 - 1986
Graduate Studies Committee
1979 - 1982
Graduate Council
1979 - 1982
Physical Sciences Subcommittee
1979 - 1982
Course and Curriculum Committee Chairman for the Department of Computer
Science

1979
1979 - 1981
Graduate Faculty, Physical Sciences Subcommittee
1979 - 1982
Big-8 Womens Advisory Committee
1978 - 1982
Guest Scholar Committee
1978 - 1982
ALAW University Representative
1977 - 1980
Art and Science Honors Program, Advisor Committee
1978 - 1982
Intercollegiate Athletic Committee
1974
Search Committee, Women's Athletic Director
1973 - 1974
Academic Affairs Committee
1973 - 1974
Faculty Senate
1969 - 1970
University Digital Computer Committee

Public Service:

1969 - 1973
1967 - 1974
Alumni Board of Directors, College of Engineering, Michigan State University
Committee for High Education in Computing in Kansas

Awards:

1970
1978
1961
1958
Distinguished Alumni Award, Michigan State University
Dissertation Honors, Kansas State University, Ph.D.
Outstanding Mechanical Engineering, Senior
Outstanding Engineering Sophomore-Phi Kappa Phi

HONORARY PROFESSIONAL SOCIETIES:

American Society of Mechanical Engineers
Association for Computing Machinery
Tau Beta Pi
Phi Kappa Phi
Pi Tau Sigma
Pi Mu Epsilon
Mortar Board
Sigma Xi

PROFESSIONAL SERVICE:

ACM SIGSMALL Program Chair, 1986 National Conference
ACM SIGSMALL North American Program Chair, 1988 National Conference
CSAB Review Team Member 1986
ACM SIGSMALL Speakers Chair, 1985 National Conference
Co-ordinator for Conference on Mathematical Foundations of Programming
Semantics, Manhattan, CS, 1985
State of Louisiana, Board of Regents Review Panel for Computer Science
Education 1985, 1985
ACM Computer Science Conference, Session Chair, 1981
Kansas Mathematics Association, Computers in Mathematics Panel, 1981
ACM National Computer Science Conference, Exhibit Chair, 1980

RESEARCH FIELDS:

Concurrency
Database
Distributed Systems
Office Automation

PERSONAL DATA:

Date of Birth - May 23, 1939
Marital Status - Married
Family - 1 son, 2 daughters
Citizenship - USA

PUBLICATIONS:

Cipra, L. E., E. A. Unger and O. W. Bidwell, "A Computer Program to
Danskın, D. G., E. A. Unger and C. E. Kennedy, "Adapting the Computer for Narra-
tive Material: A Progress Report," Journal of Counseling Psychology, 17, pp. 63-66,
1970.
Unger, E. A., T. J. Swanson and M. H. Miller, "Planning for the Expansion of Com-
puting Capabilities," 3rd Texas Conference on Computer Systems, Austin, Texas,
1974.
Unger, E. A. and N. Ahmed, "An Instructionally Acceptable Cost Effective Approach
to a General Introductory Computer Science Course," Bulletin of the ACM Special
Interest Group in Computer Science Education, May 1976.
Sego, J. and E. A. Unger, "The Computer to Your Rescue," Journal of Home Econom-
ics, September 1977.
Schweppe, E. J. and E. A. Unger, "A CONCURRENT MODEL: Fundamental,"
Proceedings 1st European Conference on Parallel and Distributed Systems, February,
1979.
Stonim, J., E. A. Unger and P. S. Fisher, "Data Base Management System Environment
Present and Future," ACM Sigsmall, 1979.

- Unger, E. A., R. A. McBride, J. Stonim and F. J. Maryanski, "Design for the Integration of a DBMS into a Network Environment," in Proceedings of Sixth Communications Symposium, IEEE, 1979.
- Maryanski, F. J. and E. A. Unger, "A Major in Information Systems," Special Issue on Computer Systems Education, IEEE, 1979.
- Unger, E. A., P. S. Fisher, R. A. McBride and J. Stonim, "Design for Integration of a DBMS into a Network Environment," Computer Society Tutorial on Distributed Processing, IEEE, March 1980.
- Unger, E. A. and E. J. Schweppe, "A Concurrency Method: Definition," Proceedings of ACM Computer Science Conference, Feb. 1981.
- Schweppe, E. J. and E. A. Unger, "A Concurrency Method: Examples," Proceedings of ACM Computer Science Conference, Feb. 1981.
- Engler, Verlyn, E. A. Unger and Bryan Schurle, "The Potential for Microcomputer Use in Agriculture," Kansas Agricultural Experiment Station, Contribution member 81-412-A (also presented to the Agriculture Economics Annual Meeting, August 1981).
- Unger, E. A., W. T. Cottrell and P. A. Vigiucci, "Management Issues on a Geographically Distributed Network," in Advances in Distributed Processing, Vol. 2, Heyden Publishing Company, 1982.
- Stonim, J., R. A. McBride, P. S. Fisher and E. A. Unger, "A Throughput Model," in Advances in Distributed Processing, Vol. 2, Heyden Pub. Co., 1983.
- McBride, R. A., J. Stonim, L. J. MacRae, E. A. Unger, "Mediator: An Approach for Providing a Global User View in a Distributed Information Environment," in Advances in Distributed Processing Management, Vol. 2, Heyden Publishing Company, 1982.
- Aikens, W. A. and E. A. Unger, "System Resiliency in a Mobile Network," in Advances in Distributed Processing Management, Vol. 2, Heyden Publishing Company, 1982.
- Fox, Richard A. and E. A. Unger, "Selecting a Database Management System," in Chapter in Advances in Database Management, Vol. 2, Heyden Publishing Company, 1982.
- Stonim, J., R. A. McBride, P. S. Fisher and E. A. Unger, "A Quantitative Analysis of Information Processing in Centralized and Distributed Architectures," in Advances in Distributed Processing, Vol. 2, Heyden Publishing Company, 1982.
- Stonim, J., L. J. MacRae and E. A. Unger, "Distributed System Development: Risks and Rewards," Auerbach Series on Computer Systems, 1982.
- Unger, E. A. and P. S. Fisher, "Evolving to a Distributed Data Base Environment, Computer Communications, Vol. 5, No. 1, 1982.
- Barker, R. and E. A. Unger, "A Predictor for Success in an Introductory Programming Class Based upon Abstract Reasoning Development," ACM SIGCSE Bulletin, Feb. 1983, p154-158 (presented at annual meeting)
- Mata, R. and E. A. Unger, "Another Look at Motivating Data Processing Professionals," ACM SIGUCCS, Vol. 13, No. 3, Fall 1983, p7-11.

McBride, R. A. and E. A. Unger, "Modeling Jobs in a Distributed System," Proceedings ACM Conference on Personal and Small Computers, Dec. 1983, p32-44. (presented by McBride at Dec. 1983 meetings)

Unger, E. A., D. Jantz, R. A. McBride and J. Sionim, "Query Processing in a Distributed Database," Proceedings ACM Conference on Personal and Small Computers, Dec. 1983, p237-245. (presented by Unger at Dec. 1983 meetings)

Unger, E. A., J. Sionim, P. Fisher and R. A. McBride, "Quantitative Analysis of Information Processing in Centralized and Distributed Architecture," in Advances in Distributed Processing Management, Vol. 2, John Wiley and Sons, 1984.

Unger, E. A., W. T. Cottrell and P. A. Vigliucci, "Management Issues in a Geographically Distributed System," in Advances in Distributed Processing Management, Vol. 2, John Wiley and Sons, 1984.

Unger, E. A. and W. P. Aikens, "System Resiliency in a Mobile Network," in Advances in Distributed Processing Management, Vol. 2, John Wiley and Sons, 1984.

Unger, E. A., J. Sionim, L. H. MacRae and R. A. McBride, "Mediator: An Approach for Providing a Global User View in a Distributed Information Environment," in Advances in Distributed Processing Management, Vol. 2, John Wiley and Sons, 1984.

Pashan, A. and E. A. Unger, "Resource Monitors: A Design Methodology for Operating Systems," accepted by Software Practice and Experience, August 1984, p 791-806.

Honeyman, J. and E. Unger, "SFM: Synchronizing Forms Manager," ACM SIGSMALL Proceedings, 1986.

Huang, Y.W., E.A. Unger, L.T. Fan, "Impact of Programming Environment on Fuzzy Process Design and Synthesis; AICHE Proceedings, 1986.

Huang, Y.W., M.M. Gharpuray, L.T. Fan and E.A. Unger, "A Fuzzy Expert System for Separation Sequencing of Bioproducts", Proceedings of the Symposium on Bioprocessing Strategies: Control, Integration, and Artificial Intelligence, 1986.

PROFESSIONAL PRESENTATION:

Unger, E. A., "Intelligent Data Objects: A Useful Concept in Networks", MAECON Technical Seminar, Kansas City, 1985.

Sherman, G., Unger, E. A., "A Computer Vision Algorithm Based on Planar Sectors", MAECON Technical Seminar, Kansas City, 1985.

BOOKS:

Unger, E. A., N. Ahmed, Classroom Instruction Notes: Fundamentals of Computer Programming, Kendall/Hunt Publishing Company, 1976.

Unger, E. A., N. Ahmed, Computer Science Fundamentals: An Algorithmic Approach Via Structured Programming, Charles Merrill Publishing Company, 1979.

Unger, E. A., J. Sionim and P. S. Fisher Editors, Advances in Database Management, Vol. 2, Heyden Publishing Company, 1983.

Stonim, J., P. S. Fisher, E. A. Unger Editors, Advances in Data Communication Management, Vol. 2, Heyden Publishing Company, 1983.

Fisher, P. S., E. A. Unger and J. Stonim Editors, Advances in Distributed System Management, Vol. 2, Heyden Publishing Company, 1983.

TEACHING EXPERIENCE:

1. Courses Taught

- a) Data Base Management at B.S., M.S. and Ph.D. levels
- b) Programming Languages at B.S. and Ph.D. levels
- c) Computational Structures at Ph.D. level
- d) Data Structures at B.S. level
- e) Introductory Computer Science and Computer Literacy
- f) Distributed Systems at M.S. and Ph.D. levels
- g) Computing Service Center Management at M.S. level
- h) Numerical Analysis at B.S. level
- i) Office Automation M.S. and Ph.D levels

2. Graduate Student Direction

- a) Ph.D. students 5 completed
6 active
- b) M.S. students 80 completed
18 active
- c) B.S. honors students 2 completed
- d) Supervisory Committee Service (not including my students) M.S. - approximately 75
Ph.D. - 15

3. Student Evaluations of Teaching Effectiveness - upper 15%, 1979 Undergraduate teaching award finalist, KSU

Synopsis of a Resume

NAME:

Virgil E. Wallentine

ADDRESS:

109 Notre Dame Circle
Manhattan, Kansas 66502

POSITION:

Professor and Department Head
Computer Science Department
Kansas State University
Manhattan, Kansas 66506

TELEPHONE:

Office (913) 532-6350

EDUCATION:

1965 BS Mathematics Iowa State University
1970 MS Computer Science Iowa State University
1972 PhD Computer Science Iowa State University

RESEARCH FIELDS:

Operating Systems
Concurrent Programming Systems
Computer Networks
Knowledge-based Software Engineering

PERSONAL DATA:

Date of Birth - April 16, 1943
Marital Status - Married to Dee
Family - 2 children
Citizenship - U.S.

PROFESSIONAL EXPERIENCE:

Employment

1982 - present Current Position
1980 - 1982 Professor
Computer Science Department
Kansas State University
1976 - 1980 Associate Professor
Computer Science Department
Kansas State University
1972 - 1976 Assistant Professor
Computer Science Department
Kansas State University

1971 - 1972	Instructor & Systems Analyst Dept. of Computer Science Iowa State University
1967 - 1971	Systems Analyst Ames Laboratory U.S. Atomic Energy Commission Ames, Iowa
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1986	Reviewer for research proposals-Missouri Research Assistance Program
1978 - 1982	Reviewer for research proposals-Army Research Office
1979	Invited participant, Network IPC Workshop, Atlanta, Georgia
1980	Technical program chairman, 11th Annual ACM SIGCSE Conference, Kansas City, Kansas
1980	Session chairman, 11th Annual ACM SIGCSE Conference, Remote Teaching-Technology and Experience
1982 - 1984	Reviewer for IEEE INFOCOM
1980 - 1984	Reviewer for Data Communications Annual Symposiums
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1976	Cullinane Corporation-Host/Backend Message System
1977	National Cash Register-Distributed Processing Systems
1977	Air Force-A Hierarchical Computer Network for Real-time Data Collection
1978	National Semi-Conductor-Multiprocessor Computer Architecture
1978	NCR Corporation-Distributed Data Base Simulation Model
1979 - 1980	Advanced Software Systems, Perkin-Elmer Computer Systems Division-- Operating System Structure
1981	Lawrence Livermore Laboratory-Code Optimization in Pascal Compilers
1981 - 1982	Battelle Laboratories-Network Operating Systems
1982 - 1983	Battelle Laboratories-Common Operating System Command Language
1984	Astronautics - Provably Secure Operating Systems.

Grants(Funded)

1976 - 1977 V. E. Wallentine, Principal Investigator. Functionally Distributed Computer Systems Software and System Structure (\$190,000). Grantor: U.S. Army Research Office

1977 V. E. Wallentine, Principal Investigator. Optimizing (Sequential and Current) PASCAL Compilers for a High-level Language (HLL) Machine (\$15,700). Grantor: Advanced Development Division, Perkin-Elmer Data Systems

1977 V. E. Wallentine, Principal Investigator. A Systems Implementation Language for an HLL Architecture (\$30,000). Grantor: Advanced Development Division, Perkin-Elmer Data Systems

1977 V. E. Wallentine and W. J. Hankley, Principal Investigators. Simulation of Network Performance for Distributed Data Base Configurations (\$8,196). NCR Corporation

1978 V. E. Wallentine, Principal Investigator. A Network Based Operating System (\$38,000). Grantor: Advanced Development Division Perkin-Elmer Data Systems

1978 - 1980 V. E. Wallentine, Principal Investigator. Distributed Operating Systems (\$265,000). Grantor: Army Research Office

1979 V. E. Wallentine, Principal Investigator. NSF Travel Grant (\$3,600)

1980 - V. E. Wallentine, Principal Investigator. Performance of Message-Based Operating Systems (\$8,300). Grantor: Perkin-Elmer Data Systems, Advanced Development Division.

1980 - 1981 V. E. Wallentine, Principal Investigator. Multi-level Symbolic Debugging in Separately Compiled Pascal Modules (\$40,000). Perkin-Elmer Ltd., Slough, England.

1983 V. E. Wallentine, Principal Investigator. Western Electric Graduate Program (\$166,000).

1984 V. E. Wallentine, Principal Investigator. AT&T Technologies Graduate Program (\$192,000)

1985 V. E. Wallentine, Principal Investigator. AT&T Information Systems Graduate Program (\$202,000)

1986 V. E. Wallentine, Principal Investigator. AT&T Information Systems Graduate Program (\$202,000)

EQUIPMENT GRANTS:

1976	(\$190,000) Minicomputer equipment from Interdata
1977	(\$35,000) minicomputers, terminals, and communications interfaces from Perkin-Elmer Data Systems
1979	(\$50,000) minicomputer from NCR Corp. Wichita, Kansas
1980	(\$26,000) minicomputer memory from Perkin-Elmer Data Systems
1984	(\$46,000) Color Graphics System and remote access terminals from AT&T Information Systems
1985	(\$300,000) Minicomputer Systems from AT&T Information Systems
1986	(\$1,000,000) Mini- and Micro- Computer Systems from AT&T Information Systems

PUBLICATIONS:

Papers

- A Pedagogical Operating System, (with J. H. Campbell and C. T. Wright), ACM SIG-PLAN Symposium on Pedagogic Languages with Small Computers, January 1972.
- Separation of Introductory Programming and Language Instruction, (with P. S. Fisher and W. J. Hankley), Proceedings of ACM SIGCSE Annual Conference, February 1973.
- Operating Systems in the Process Control Environments, (with F. R. Keller), Proceedings of Second Texas Conference on Computing Systems, Austin, Texas, November 1973.
- Design of a Spectrum of User-oriented Languages, (with W. J. Hankley), Proceedings of Seventh Annual Conference on the Interface of Computer Science and Statistics, Ames, Iowa, October 1973.
- A Model for Extensible-Contractible Language Compilers, (with G. G. Anderson), Proceedings of the 1975 International Algol 68 Conference, Stillwater, Oklahoma, June 1975.
- A Simulation Model of a Backend Data Base Management System, (with F. J. Maryanski), Proceedings 5th Annual Pittsburgh Modeling and Simulation Conference, Pittsburgh, Pennsylvania, March 1976.
- Evaluation of Conversion to a Backend Data Base Management System, (with F. J. Maryanski and P. S. Fisher), Proceedings of 1976 National ACM Conference, Houston, Texas, October 1976.
- A Mini-Computer Based Distributed Data Base System, (with F. J. Maryanski, P. S. Fisher, M. A. Calhoun, and L. Sernovitz), Proceedings NBS-IEEE Trends and Applications Conference—Mini- and Micro-computer Systems, Washington, D. C., June 1976.

Distributed Data Base Management Using Mini-computers, (with F. J. Maryanski, P. S. Fisher, and M. A. Calhoun), Infotech State-of-the-Art Report, "Mini's Versus Mainframes," February 1978.

Experiences with the Portability of Concurrent Pascal, (with D. Neal), Software Practice and Experience, Vol. 8, No. 3 (May-June) 1978.

A Distributed Data Processing System Architecture, (with P. Fisher), (invited paper), Proceedings of SHARE 50, March 6-10, 1978, Denver, Colorado.

Programming Issues in Distributed Systems. Proceedings of the Network IPC Workshop, Georgia Tech., Phil Enslowe, editor, December 1979.

Experience with Concurrent Pascal as an Implementation Language, Proceedings of Conference on Microprocessors in DoD, Colorado State Univ., August 1979.

Data Access in Distributed Data Base Management Systems, (with F. J. Maryanski and P. Fisher), Journal of Information and Management, Vol. 2, No. 6 (December) 1979.

Editor (with W. Bulgren), Proceedings of the Eleventh ACM SIGCSE Technical Symposium, February 1980.

Color Graphics for Remote Teaching, (with W. J. Hankley), Proceedings of the 1980 ACM SIGGRAPH Conference, July 1980.

Computer Network Security, (with J. Scharf and P. Fisher), in Advances in Computer Network Security, Heyden & Sons, Philadelphia, PA, 1980.

Discrete Simulation with a Concurrent Base Language, (with W. J. Hankley and R. A. McBride), Proceedings of 1981 Summer Simulation Conference, Reston, Va., July, 1981.

OFFICE/NET: The Backbone of the Automated Office (with J. Slonim, P. Fisher, L. McRae and R. McBride), in Electronic Office: Management and Technology, Auerbach Publishers, Inc., Pennsauken, N.J., April 1982.

Modeling and Simulation of the performance of Distributed Data Management Systems, (with W. J. Hankley), in Advances in Distributed Processing Management, Fisher, Slonim, and Unger, editors, John Wiley & Son, Inc., 1983

Technical Reports

An Abstract Machine to Control the Execution of Semi-Independent Concurrent Computations, (with C. T. Wright and R. F. Keller), (Iowa State University), U. S. Atomic Energy Commission Report IS-2920, August 1972.

A User-orientated Hardware Monitor, (with G. G. Anderson, F. R. Keller, and P. S. Fisher), KSU Department of Computer Science Technical Report, July 1975.

Usability and Feasibility of Backend Minicomputers, (with F. J. Maryanski and P. S. Fisher), KSU Department of Computer Science Technical Report, June 1975.

Implementation of a Backend Data Base Management System, (with F. J. Maryanski, P. S. Fisher, et al.), KSU Department of Computer Science, October 1975.

Concurrent PASCAL—A Tutorial, (with R. McBride), KSU Department of Computer Science, Technical Report No. CS76-17, December 1976.

The KSU Implementation of Concurrent PASCAL, (with D. Neal, G. Anderson, and J. Ratiiff), KSU Department of Computer Science, Technical Report No. CS76-16, October 1976.

Progress Report on Functionally Distributed Computer Systems, (with M. A. Calhoun, P. S. Fisher, W. J. Hankley and F. J. Maryanski), July, 1976; and In-Progress Review of Functionally Distributed Computer Systems, December 1976, Technical Report No. CS77-04.

A User-Transparent Mechanism for the Distribution of a CODASYL Data Base Management System, (with F. J. Maryanski and P. S. Fisher), KSU Department of Computer Science, KSU Report No. CS76-22, December 1976.

SOLO Tutorials, (with D. Neal and B. North), KSU Department of Computer Science, Technical Report No. CS77-20, October 1977.

MIMICS (Asynchronous) Line Protocol, (with E. Rehme), KSU Department of Computer Science, Technical Report No. CS77-15, December 1977.

NFTSIM: A Distributed Network (Data Base) Simulation Program, (with W. J. Hankley, A. Skidmore, and R. McBride), KSU Department of Computer Science, Technical Report, No. CS79-02, January 1979.

SIMMON—A Concurrent Pascal Based Simulation System, (with W. J. Hankley and R. McBride), KSU Department of Computer Science, Technical Report No. CS79-05, February 1979.

The NADEX Core Operating System Services, (with R. Young), KSU Dept. of Computer Science, Technical Report No. CS79-11, November 1979.

The Structure of the NADEX Operating System, (with R. Young), Technical Report No. CS79-12, November 1979.

Implementation of the Kernel of Concurrent Pascal/32, (with R. Young), Technical Report No. CS79-13, December 1979.

Command Processors for Dynamic Control of Software Configurations, (with R. Fundis), KSU Dept. of Computer Science, Technical Report No. CS80-02, August 1980.

A Software Structuring Tool for Message-Based Systems, (with K. Rochat), KSU Dept. of Computer Science, Technical Report No. CS80-04, August 1980.

NADEX Job Control System Implementation, (with K. Rochat), KSU Dept. of Computer Science, Technical Report No. CS80-05, July 1980.

NADEX Utility Programs, (with K. Rochat), KSU Dept. of Computer Science, Technical Report No. CS80-06, August 1980.

A Sampler of Software Configurations for NADEX (With R. Young and D. Eaton), AIRM-ICS Technical Report, Georgia Tech., Atlanta, Georgia, April 1982.

KSU/KU Communications Link. Legislative Committee on Computers, Communications, and Technology, Topeka, Kansas, July, 1984.

Presentations (outside KSU)

Structural and Performance Issues in a Backend Minicomputer System. (with P. S. Fisher and F. J. Maryanski). U. S. Army Computer Systems Command, May 1975.

Structure of the MIMICS Computer Network. Colloquium at Defense Communications Agency, Washington, D. C., May 1976.

Standardization of Data Link Control Procedures. Colloquium at Naval Operations (91), Pentagon, Washington, D. C., July 1976.

Concurrent PASCAL—An Implementation Language for Event-Driven Systems. Inter-change Conference, Tinton Falls, New Jersey, October 1976.

The Design and Implementation of the MIMICS Network. Briefing at Computer Systems Command, Advanced Technology Directorate, Fort Belvoir, Virginia, January 1977.

Computer Network Support for Geographically Distributed Data Processing Functions. (with P. S. Fisher). Social Security Administration, Baltimore, Maryland, July 1977.

Alternative Machine Expansion. (invited talk), SHARE 50 Conference, March 7, 1978, Denver, Colorado.

Software Configurations—Inherently Distributable Software. Army Institute for Research in Management Information and Computer Sciences (AIRMICS), August 1978, Atlanta, Georgia.

A Portable Operating System. AIRMICS, Atlanta, Georgia, May 1979.

Distributed Operating Systems. Dept. of Computer Science, Oregon State University, May 1979.

NADEX—A High Level Language Operating System, Advanced Development Division, Perkin-Elmer Data Systems, Tinton Falls, New Jersey, May 1979.

COOP--A Computer-based Remote Teaching System, NCR Corp., Wichita, Kansas, July 1979.

Experiences with Concurrent Pascal as an Implementation Language. Workshop on Microprocessors in DoD, Colorado State University, Ft. Collins, Colorado, August 1979.

Mini-computer Networks. 1979 Conference for Higher Education Computing in Kansas, KSU, September 1979.

Implementation of Distributed Communicating Sequential Processes, AIRMICS, November 1979.

Design Considerations for a Multiprocessor, Distributed Virtual Memory System. (with R. Young), Perkin-Elmer Data Systems, March 1980.

NADEX—A Network Adaptable Executive, Perkin-Elmer Data Systems, March 1980.

NADEX—An Environment for Modular Distributed Programming, Iowa State University, October 1980.

Implementation of a Common Operating System Command Language, AIRMICS, July, 1983.

The Life Cycle of Evolving Software Systems, Armed Forces Communications and Electronics Association, Symp., Oct. 1983.

KSU/KU Communications Link. Legislative Committee on Computers, Communications, and Technology, Topeka, Kansas, July 1984.

MANAGEMENT EXPERIENCE:

1. Research Grants

- a. \$100,000 per year for 6 years
- b. 5-10 people in research development staff and research faculty

2. Department Head (1978-1979, 1982-present)

- a. 15 faculty and staff members
- b. 50 research and teaching assistants
- c. \$1.5 million annual budget
- d. Faculty evaluation—upper 10%

3. Director of Minicomputer Lab (16 years)

- a. \$2.5 million equipment
- b. 3 support staff

4. Implementation Projects Completed

- a. Optimizing compilers for Sequential and Concurrent Pascal
- b. Network hardware and software
- c. A Module Control System
- d. HLL operating system
- e. Simulation system
- f. Word processing system
- g. Network Operating System—NADEX

5. Research support for 20 graduate students

TEACHING EXPERIENCE:

1. Courses Taught

- a. Operating systems at BS, MS, and Ph.D levels
- b. Data structures at BS level

- c. Computer architecture at BS and MS levels
- d. Programming languages at all levels
- e. Compiler design at MS and Ph.D levels
- f. Computer networks at MS and Ph.D levels
- g. Computation structures at the Ph.D level
- h. Office Automation at MS level

2. Graduate Student Direction

- a. Ph.D students
3 completed
4 active
- b. MS students
50 completed
10 active

c. Supervisory Committee Service

- (not including my students)
MS—approximately 120
PhD—10

3. Student Evaluations of Teaching Effectiveness—upper 25%

COMMITTEE SERVICE:

1. University Committees

- 1973-1974, 1980-1984 University Digital Computer Committee
- 1976-1978 Arts and Sciences Honors Council
- 1978-1985 Computer Science Building Planning Committee
- 1980 Graduate College Grievance Committee
- 1980 Faculty Senate Committee on Recreational Services
- 1980-1983 Television in Education
- 1983-1986 University Academic Computer Advisory Committee
- 1983-1985 Task Force on High Technology
- 1985-1986 University Telecommunications Executive Committee
- 1985-1986 Computer Engineering Curriculum Committee

2. Computer Science Department Committees

- 1974-1986 Director—Minicomputer Laboratory
- 1972-1986 Curriculum Committee
- 1974-1975, 1979 KSU/KU Joint PhD Committee
- 1974-1976, 1979-1981 Chairman, Graduate Studies Committee
- 1978-1986 Off-campus Teaching
- 1972-1986 Ph.D Prelim. Committee
- 1975-1986 MS Qualifier Committee

REFERENCES:

Dr. Elizabeth Unger
Professor
Dept. of Computer Science
Kansas State University
Manhattan, Kansas 66506

Dr. Richard Sincovec
Professor and Head
Dept. of Computer Science
University of Colorado Colorado Springs
Colorado Springs, Colorado

Dr. Paul S. Fisher
Professor
Dept. of Computer Science
Kansas State University
Manhattan, Kansas 66506

Synopsis of a Resume

NAME:

Myron Ammon Calhoun

ADDRESS:

2001 Dunbar Road
Manhattan, Kansas 66502

POSITION:

Associate Professor
Computer Science Department
Kansas State University

TELEPHONE:

Office: (913) 532-6350
Home: (913) 539-4159

EDUCATION

1961	AA	Graceland College	Lamoni, IA
1963	BS	University of Kansas	Lawrence, KS
1964	MS	Colorado State University	Ft. Collins, CO
1967	PhD	Arizona State University	Tempe, AZ

INTERESTS:

Hardware design, development, and implementation of digital systems which may range in size from dedicated-application non-programmable digital controllers up through micro, mini, and large-scale general purpose programmable computers.

Programming of computer "system" software, especially assembly, device drivers, local-area networks, and other software concerned with input/output problems.

Application of computers to needs of the physically handicapped, including design of special-purpose input/output devices and programming of "user-friendly" interactive software.

Smoothing of Hardware-Firmware-Software-Programming boundaries via machine-independent software, languages, and computer-aided design.

Teaching others how to do all of the above.

Major Employment Responsibilities:

1971 - Present

Computer Science Department
Kansas State University
Manhattan, KS

Dr. Virgil E. Wallentine, Department Chairman

Taught various classes in digital system hardware and logic design, computer programming, operating systems, data structures, and microcomputer systems. Served on M.S. and Ph.D. committees, directed M.S. projects. Chairman of or served on various academic committees. Conducted various research projects.

1984 - Summer

Computer Science Directorate
Armament Division

Eglin Air Force Base, Florida 32542
Dr. Robert N. Braswell, Director

As a Research Fellow in the U.S. Air Force Office of Scientific Research Summer Faculty Research Program (administered by the Southeastern Center for Electrical Engineering Education), designed and developed assembly language programs for the Zenith Z-100 desktop computer in support of non-classified Air Force projects.

1971 - 1975

Electrical Engineering Dept.

Kansas State University

Manhattan, Kansas 66506

Dr. Wellington Koepsel, Department Chairman

Taught various classes in digital system hardware and logic design and microcomputer systems. Served on M.S. and Ph.D. committees. Assisted in various research projects.

1973 - Summer

Brooks Research & Manufacturing, Inc.

Subsidiary of Dit-MCo International

Kansas City, MO 64130

Price D. Wickersham, Coordinator

Investigated the possibility and advisability of using the "new" microcomputer in their minicomputer - controlled automatic wiring analyzers. Wrote a cross assembler and a simulator, hand-translated some NOVA code into equivalent microcomputer code, and evaluated the simulated execution time for crucial control functions.

1967 - 1971

Digital Systems Research Department

Fairchild R. & D. Laboratory, F. C. & I., Inc.

Palo Alto, CA

Dr. William R. Smith, Supervisor

Rex Rice, Department Chairman

Helped to implement SYMBOL IIR, a radically innovative digital computer with multiprogramming, multi-processing, and a high-level language (Algol-like) all in hardware; shared in the specification of, and wrote the programs (including a special language interpreter and all I/O interface routines) for a test facility used to "debug" the new computer with an existing one; supervised the system software programming group; and led the specification team for the design of SYMBOL II, a second, more advanced version of the computer. Also specified the design of a high-speed, special-purpose, micro-programmable binary computer to function as a terminal-controller/data-concentrator in SYMBOL II.

Specified a complete family of general-purpose binary computers and performed preliminary cost analysis; designed and built the smallest member of the family (a 512-word, 9-bit peripheral controller); supervised its interfacing to a 9-track tape, a large flat bed plotter, a card reader, and a paper-tape reader and punch; wrote its software and all of its application programs.

Wrote an analysis and evaluation program to facilitate semi-automatic testing of the ILLIAC IV LSI memory chip; specified a systematic procedure to test and evaluate LSI wafers automatically using a minicomputer and a wafer probe station. Assisted in writing programs for computer-aided design of digital systems, including placement and wire-routing algorithms.

1966 - Summer

E. G. & G. Inc.
Las Vegas, NV
Lee Wilder, Supervisor

Designed several pieces of digital and analog test equipment in support of classified AEC projects.

1963 - Summer

Holmdel, NJ
Robert M. Wolfe, Supervisor

Developed a solid-state digital current control servo for the Automatic Identified Outward Dialing translation memory.

PROFESSIONAL EXPERIENCE:

Minor Employment (Consulting)

1982

AERO Technology
Independence, MO

1981

Arnold, White & Durkee (Attorneys at Law)
Houston, TX

1978

National Semiconductor Corp.
Sunnyvale, CA

1978

Irons & Sears (Patent Counsel)
Washington, DC

1974 - 1975

Unified Industries
Alexandria, VA

Grants:

1971

Man-machine communication via programmable tone generators attached to computers (\$300) Bureau of General Research, KSU.

1971

Music generation with a computer/ARP synthesizer interface (\$1,700) Bureau of General Research, KSU.

1973

Digital computer architecture laboratory (\$1,340) Bureau of General Research, KSU.

1973

Electronic control unit for cassette recorders (\$675) Bureau of General Research, KSU.

- 1975 Development of a low-cost hardware monitor (\$29,696) U.S. Army Research Office (jointly with V. Wallentine).
- 1977 Functionally Distributed Computer Systems Development: Software & Systems Structure (\$190,000) U.S. Army Research Office (jointly with V. Wallentine, W. Hankley, and F. Maryanski).
- 1979 Oscilloscopes, frequency meters, terminal equipment, readouts, etc. (\$15,509) solicited from various industrial companies for use in C.S. Dept's. micro-lab.
- 1982 Collage of projects (\$500) Bureau of Gen. Res.
- 1984 A Low-cost Local-area Network for Desktop Computers (\$11,952), Administered by the Southeastern Center for Electrical Engineering Education for the U. S. Air Force Office of Scientific Research.

HONORS:

- 1964 NASA Fellowship (3 years), Arizona State University
- 1963 NSF Graduate Fellowship, Colorado State University
- 1963 Graduated "with highest distinction", University of Kansas
- 1962 RCA Scholarship, University of Kansas
- 1961 BOEING Scholarship, University of Kansas
- 1961 GOLD SEAL (one of three) for scholarship, Graceland College
- 1959 National Merit Finalist
- 1959 Valedictorian, Milton (FL) High School

REFERENCES:

Dr. Paul Fisher, President
 Computer & Information Sciences, Inc.
 2316 Anderson Avenue
 Manhattan, Kansas 66502
 (913) 537-0613

Dr. Stephen Lundstrom, Vice President
 Micro Electronics and Computer Technology Corp.
 Echelon Building #1, Suite 200
 9430 Research Boulevard
 Austin, Texas 78759
 (913) 834-3320

Dr. William Smith
 Multi-data Corporation
 1866 Golden Way
 Mountain View, California 94040 (408) 293-1801

Dr. John Staudhammer
 Director Graphics Facility
 Dept. of Electrical Engineering
 University of Florida

Gainesville, Florida
(904) 392-3261

Dr. Virgil E. Wallentine, Chairperson
Dept. of Computer Science
Nichols Hall Room 234
Kansas State University
Manhattan, Kansas 66506
(913) 532-6350

PUBLICATIONS:

"Electricity as It Affects Our Modern Homes and Farms," First Place, Florida State-wide 4-H Club Public Speaking Contest, 1955.

"A Pseudo-Pulse Emission for the Amateur Bands Below 2.3 GHz," First Place IEBE Student Paper Contest, Undergraduate Division, Region V, 1963.

"Construction and Testing of IOD Translation Store Current Servo," Case 39873, Bell Telephone Laboratories, Holmdel, NJ, 1963.

"Cauer Synthesis by Digital Computer," Proc. GET Conf., Scottsdale, AZ, April, 1965.

Machine-independent Assemblers for Computing Systems. Ph.D. Dissertation, Arizona State University, Tempe, AZ, July, 1967.

"Meta-Assembly Made Easy," IEBE Region VI Conf., Portland, OR, May, 1968.

"SYMBOL—Large Experimental System Exploring Major Hardware Replacement of Software," with others, Proc. SJCC, Atlantic City, NJ, May, 1971.

"SYMBOL Hardware Debugging Facilities," Proc. SJCC, Atlantic City, NJ, May, 1972.

"Computer Instrumentation of SYMBOL," Proc. Third Texas Conf. on Computing Systems, Austin, TX, November, 1974.

"A Design Automation System and Its Uses," MAE-CON, Kansas City, MO, November, 1974.

"The (Semi) Automatic Testing Languages for SYMBOL," Missouri Symposium on Advanced Automation, Columbia, MO, April, 1975.

"A System for Digital Design and Simulation," with J. Scott Vance, Sixth Annual Pittsburgh Modeling and Simulation Conference, April, 1975.

"A Mini-Computer Based Distributed Data Base System," Proc. NBS-IEBE Trends & Application Symposium: Micro & Mini Systems, May, 1976 (jointly with F. Maryanski, P. Fisher, V. Wallentine, and L. Sernowitz); CS 76-11.

"Functionally Distributed Computer System Development: Software & Systems Structure," Progress Report, December, 1976 (jointly with V. Wallentine, Wm. Hankley, G. Anderson, and F. Maryanski); CS 77-04.

- "Distributed Data Base Management Using Minicomputers," Infotech State-of-the-Art report "Mini's versus Mainframes," October, 1977 (jointly with F. Maryanski, V. Wallentine, and P. Fisher); CS 77-22.
- "The KSUBUS - A Functional Description," January, 1977; CS 78-01.
- "The KSUBUS - A Detailed Scripion," January, 1977; CS 78-02.
- "Resistance-Controlled Audible Continuity Tester," magazine, April, 1980, page 01.
- "A Shared-Peripheral Network for a Micro-Computer Development Laboratory," MAE-CON, Kansas City, MO, October, 1980.
- "Dungeons and Dragons Dice Simulator for the KIM-1," COMPUTE! magazine, June, 1981, pp. 145-146.
- "Inexpensive Automatic Send/Receive Changeover Relay," Ham Radio magazine, May 1980, p. 40.
- "USER'S GUIDE to the Software Driver Package and the Z-004 Multiport I/O Card", to accompany the Software Driver Package written for the Computer Science Directorate at Eglin Air Force Base, Florida, 1984.