



## EMPLOYMENT

### Professional Employment

- 1994 – present Professor of Computer Science, University of Minnesota, Morris
- Jan'03- Jul'04 Assistant to the Associate Vice Chancellor for Enrollment, UMM
- Fall 1994 Acting Chair, Division of Science & Mathematics  
University of Minnesota, Morris
- 1983-94 Professor & Director of Computing Services  
University of Minnesota, Morris, MN
- 1989-90 Senior Lecturer & Director of Computing Services  
Dept. of Computer Science  
Texas A&M University  
College Station, TX
- 1988-89 Senior Lecturer  
Department of Computer Science  
Texas A& M University  
College Station, TX
- 1985 to 1986 Fulbright Scholar (Lecturer), Escuela Politecnica del Litoral,  
Guayaquil, Ecuador
- 1978 to 1983 Associate Professor of Mathematical Sciences and Director of  
Computer Center, University of Minnesota, Morris
- 1974 to 1978 Assistant Prof. of Math. Sci. and Director of Computer Center  
University of Minnesota, Morris
- 1970 to 1974 Assistant Professor of Mathematics  
University of Minnesota, Morris
- 1969 to 1970 Assistant Professor of Engineering Mechanics  
Michigan Tech. University  
Houghton, MI
- 1968 to 1969 Research Assistant  
Michigan Tech. University
- 1966 to 1968 Teaching Assistant (full responsibility for courses taught)  
Michigan Tech. University
- Sum. '66 & '67 Junior Engineer (Develop generalized computer programs)  
IBM  
Rochester, MN

- 12/65 to 6/66 Teaching Assistant (taught engineering graphics)  
N.D. State University  
Fargo, ND
- 1/65 to 12/65 Junior Engineer (Analysis of mech. components in computer I/O dev.)  
IBM  
Rochester, MN
- Summer 1964 Summer Engineer in Training  
IBM  
Rochester, MN
- 1962 to 1964 Student Labor in Agronomy Dept. and Student Union  
N.D. State University  
Fargo, ND

#### Sabbaticals and Leaves of Absence

- \*2001-2002 Sabbatical -Study wireless networks
- 1995 –1995 Sabbatical -Study ATM Networks, Academia Sinica, Department of Information Science, Taipei, Taiwan, ROC
- 1985 -1986 Sabbatical - study networks and parallel systems, Texas A & M Univ.  
- Fulbright scholar
- 1978 - 1979 Sabbatical - obtain M.S. in Computer Science, University of Arizona

### **PROFESSIONAL MEMBERSHIPS AND HONORS**

#### Professional Organization Memberships

Association for Computing Machinery and its Special Interests Groups on Computer Science Education and Data Communication  
Institute for Electronic and Electrical Engineering Computer Society and Communication Division

#### Professional Honors and Awards

\* Recipient of the University of Minnesota President's Award for Outstanding Service  
Fulbright Scholar, Quito, Ecuador  
Elected to Sigma Xi Research Society  
Received 3M fellowship

## TEACHING AND ADVISING

### University of Minnesota, Morris Courses Taught

- \* Network Security
- \* Social and Ethical Implications of Technology Seminar
- Problem Solving and Algorithm Development I
- Models of Computing Systems
- TCP/IP Networks
- Introduction to Robotics
- Introduction to Computer Science
- Wireless Data Networks
- Introduction to the Computing World
- Data Structures
- Comparative Programming Languages
- Computer Networks
- Computer Architecture
- Computers in Society
- Man and the Computer
- Computer Statistical Packages
- Introduction to Computer Science
- Computer Programming in FORTRAN
- Computer Programming and Problem Solving (Pascal)
- Numerical Methods
- Finite Mathematics
- Survey of Calculus I and II
- Calculus I, II and III
- Differential Equations
- Concepts in Mathematics and numerous Directed Studies and Senior Projects
- Algorithm and Computer Programming II
- \* Algorithm and Computer Programming I

### Curricular Innovations

Developed 'Man and the Computer' course for general liberal arts students - 1973

### Special Teaching Methods Implemented

Introduced the computer in the teaching of calculus. Introduced the use of Karel the robot software into the Intro to Computer Science class.

### Advising and Instruction-Related University Activities

\*Faculty advisor of the United Latinos Group,  
Faculty advisor to a Multi-ethnic Mentorship Program Student (Morgan Chatmon)  
Volunteer as a tutor to the Minority Student Program

## SCHOLARLY, PROFESSIONAL AND CREATIVE ACTIVITY

### Publications

"Editing Data Structures" Christopher W. Fraser and A. A. Lopez, ACM Transaction on Programming Languages Vol. 3, No. 2, p. 115-125, April 1981

"Locating Materials Using Computer Database Technology" Craig Kissock and A. A. Lopez, The Social Studies Vol. 69, p. 207-211, Sept. 1978

"Analysis of a Survey of Computer Science Curriculum in Small Liberal Arts Colleges: A. A. Lopez, Robert Raymond and Robert Tardiff. Communications of ACM, Vol. 20, 12 p. 903-906, Dec. 1977

"Thermoelastic Waves in Solids at Very Low Temperatures" H. W. Lord and A. A. Lopez. Acta Mecanica, 10, 1970, p. 85-98

UMM Computer Center Newsletter, Vol. 1-18, 1973-82

UMM Computer Center User's Guide, 1979 and 1980

Summary of Proposal Writing Activities:

"Improving Laboratory Experiences in Upper Division Computer Science Courses", A. Lopez, November 1993, submitted NSF ILI-IG.

"Computer Statistics Tutorials with Graphics", R. Raymond and A. Lopez, November 1974, submitted to NSF FIPSE program.

### Conference Papers and Presentations

\*\*"A Core Course on Systems for a Liberal Arts Curriculum", A.A. Lopez, Midwest Instruction and Computing Symposium, Mt. Pleasant, IA, CD-ROM publication, April 7-8, 2006

\*\*"A Course on Introduction to Robotics: Our Experience", A.A. Lopez and Chris Olson, Midwest Instruction and Computing Symposium, Eau Claire, WI, CD-ROM publication, April 8-9, 2005

\* "The Performance of IEEE 802.11b in an Outside Environment", Kevin Logan and A.A. Lopez, Midwest Instruction and Computing Symposium, Morris, MN, CD-ROM publication, April 16-17, 2004

"What a difference does a lab make in teaching TCP/IP", C. Zeman, A. Lopez and D. Moll, Midwest Instruction and Computing Symposium, Duluth, MN, CD-ROM publication, April 11, 2003

- "Comparing 802.11a and 802.11b performance", D. Moll, A. Lopez, E. Sungur and C. Zeman, Midwest Instruction and Computing Symposium, Duluth, MN, CD-ROM publication, April 12, 2003
- "Wireless LAN", A. Lopez, MICS, Cedar Falls, IA, April 6, 2002, CD-ROM
- "Panel on Networking courses", SIGCSE, Northern Kentucky, March 1, 2002
- "Distance Learning Experience," S. Harper and A. Lopez, MICS, Cedar Falls, IA, April 7, 2001, CD-ROM
- "Enhancing an ATM Simulator," R. Christen, J. Clawson and A. Lopez, MICS, Cedar Falls, IA, April 6, 2001, CD-ROM
- "Simulation of ATM Congestion Control Algorithms", J. Alama and A. Lopez, Small College Computing Symposium, La Crosse, WI, CD-ROM publication, thus no page number, April 15-17, 1999.
- "Networking Dream of the 1990's – ATM Networks", A. Lopez, Small College Computing Symposium, St. Cloud, MN, pg 482-488, April 18-20, 1996
- "Electronic Data Interchange", A. Lopez, D. Lopez and B. Schoenecker, Small College Computing Symposium, Cedar Falls, IA, pg 120-126 , April 1993
- "Computer Networks: micros to mainframes" A. A. Lopez, Small College Computing Symposium, Dubuque, IA, pg 33-41, April 1988.
- "Computer Science Offerings in Small Liberal Arts Colleges" presented at the Small College Computing Symposium, April 1978, St. Cloud, MN
- "Book Ordering Using System 2000" L. Schulz, A. Lopez and R. Dubois. Proceeding of the AUSTUTE Conference, Austin, TX, March 1977, p. 203-216
- "Recruiting and Admitting Students Using System 2000" A. Lopez, D. Savela, and L. Schulz. Proceedings of the ASTUTE Conference, Austin, TX, March 1977, p. 183-202
- "Man and the Computer" A. A. Lopez. Proceedings of the Fifth Conference on Computers in the Undergraduate Curriculum, Pullman, Washington, June 1974, p. 321-324
- "Propagation of Thermoelastic Waves by the Method of characteristics" A. A. Lopez and H. W. Lord. Presented at the Fifth SECTAM, Raleigh, NC, 5, 1971, p. 417-448

### Grants Received

Outside the University:

"Workshop on Energy Awareness and Alternatives", A. Lopez and R. McCannon, October 1979, funded by the Department of Energy.

Grant: \$21,190 first year. This project was funded for two subsequent years, we were the authors of the original project.

"Wind Energy in West Central Minnesota:", A. Lopez and R. Tardiff, August 1976, resulted in funding of wind energy project from the Community Service Administration through the West Central Minnesota Community Action Agency in Elbow Lake, MN. Grant: \$26,000.

Within the University:

"Proposal for the Improvement of Computing Equipment at UMM", A. Lopez, March 1980, submitted to U of M Central Administration, resulted in about \$38,000 per year of recurring funding for computing.

"Visiting Scientist Project", A. Lopez, J. Olson and R. Tardiff, February 1976, funded by the U of M Educational Development Program (EDP). Grant: \$2,000.

"GUIDO Music Project", A. Lopez and C. Johnson, April 1976, funded by the Small Grant Program of the Council on Liberal Education (CLE) Grant: \$2,175.

"Study of Computer Science courses appropriate for UMM", A. Lopez and R. Raymond, February 1975. EDP Grant: \$1,253.

"UMM Computer Center, Proposal for Improvement", A. Lopez, January 1975, funded by internal U of M sources to acquire a DATA 100 Batch Terminal and Key to Disk system, \$60,000.

"Request for Printing Terminal for the Computer Center", A. Lopez, October 1974. Title VI Grant: \$4,000.

"Structural Analysis Reading Skill Lesson", L. Classen, R. Schreiner, A. Lopez, August 1974. Small Grant Program of CLE, Grant: \$784.

"Development of Computer Programs of Simulation of International Processes for Undergraduate Teaching", D. Leavitt, W. Peterfi, A. Lopez, October 1973. Small Grant Program of CLE, Grant: \$1,460.

"A Proposal to Improve Mathematics Instruction through the use of Computer-Generated Graphics", A. Lopez and R. Raymond, October 1973. Small Grant Program of CLE, Grant: \$590.

"Development of Materials for a Liberal Arts Introductory Computer Course:", A. Lopez, February 1972. Small Grant Program of CLE, Grant: \$762.

"Development of Computer Programs to Aid in the Teaching of Calculus", A. Lopez, February 1972. Small Grant of CLE, Grant: \$1,755.

"Request for Graphics Terminal", A. Lopez, October 1972. Department of Education Title VI Grant: \$4,800.

"Request for Terminals", A. Lopez and R. Raymond, October 1972 and 1974. Title VI Grant: \$3,400.

### Grant Proposals Submitted, Not Accepted

"Wind Studies in West Central Minnesota", R. Burkey and A. Lopez, August 1979, submitted to the Minnesota Energy Agency.

"Visiting Scientist, Field Experience and Student Internship Program", J. Olson and A. Lopez, February, 1976, submitted to NSF CAUSE.

"Proposal to add graphics capabilities to the MIL language", R. Raymond and A. Lopez, April 1975, submitted to EDP.

### Professional Meetings Attended

- SIGCSE Conference, Northern Kentucky, March 7-10, 2007
- MICS Conference, Mt Pleasant, IA, April 7-8, 2006
- SIGCSE Conference, Houston, TX, March 1-5, 2006
- ITICSE Conference, Lisboa, Portugal, July 2005
- MICS Conference, Eau Claire, WI, April 8-9, 2005
- SIGCSE Conference, St Louis, MO, February 24-26, 2005
- Workshop on Managing Networks, Sun Microsystems and Deep Nine, Fargo, Jan'05
- Workshop on Computer Forensics, Metropolitan State Unive., St Paul, Nov. 2004
- MICSymposium, Morris, MN, April 2004
- SIGCSE Conference, Norfolk, VA, February 2004
- ITICSE Conference, Thesalonisiki, Greece, July 2003
- MICS Symposium, Duluth, MN, April 2003
- SIGCSE Conference, Reno, NV, February 2003
- MICS Symposium, Cedar Falls, IA, April 2002
- SIGCSE Conference, Northern Kentucky, KY, March 2002
- Globecomm 2002, San Antonio, TX, November 2001
- IEEE Minnesota Chapter Symposium, Minneapolis, MN October 2001
- MICS Symposium, Cedar Falls, IA, April 2001
- SIGCSE Conference, Charlotte, NC, Feb 2001
- Globecomm 2000 Conference, San Francisco, CA, Nov 2000
- ITICSE Conference, Helsinki, Finland, July 2000
- 33<sup>rd</sup> MICS Symposium, St. Paul, MN, April 2000
- 32<sup>nd</sup> Small College Computing Symposium, La Crosse, WI, April 1999
- ACM/SIGCSE Conference, New Orleans, LA, March 1999
- GLOBECOMM Conference, Sydney, Australia, November 1998
- 31<sup>st</sup> Small College Computing Symposium, Fargo, ND, April 1998
- ACM/SIGCSE Conference, Atlanta, GA, February 1998
- 30<sup>th</sup> Small College Computing Symposium, Kenosha, WI, April 1997
- ACM/SIGCSE Conference, San Diego, CA, Feb 1997
- IEEE Local Computer Networks Conference, Minneapolis, MN, Nov 1996

29<sup>th</sup> Small College Computing Symposium, St. Cloud, MN, April 1996  
Faculty Development Conference, Minneapolis, MN, Feb 1996  
IEEE Local Computer Network Conference, Minneapolis, MN, October 1995  
28<sup>th</sup> Small College Computing Symposium, Sioux Falls, SD, April 1995  
27<sup>th</sup> Small College Computing Symposium, Winona, MN, April 1994  
ACM/SIGCSE Conference, Phoenix, AZ, March 1994  
26<sup>th</sup> Small College Computing Symposium, Cedar Falls, IA, April 1993  
ACM/SIGCSE Conference, Indianapolis, IN, March 1993  
25<sup>th</sup> Small College Computing Symposium, Grand Forks, ND, April 1992  
American Library Association Conference, Denver, CO, January 1993  
24<sup>th</sup> Small College Computing Symposium, Morris, MN, April 1991  
National ACM/SIGCSE Conference, San Antonio, TX, March 1991  
National Educom Conference, San Diego, CA, October 1991  
23<sup>rd</sup> Small College Computing Symposium, River Falls, WI, April, 1990  
National ACM/SIGSE Conference, Washington, DC, February 1990

### Research and Scholarly Activities in Progress

\*Research on wireless networks

## **SERVICE**

### All-University Service

#### Committees:

- Member of the Chancellor's Search Committee, U of M, Crookston, 2003
- \* Member 2004-07 and Chair of the Senate Committee on Information Technologies, 2004-06
  - Distance Education Council
  - Search Committee for Associate Vice President for Information Technology
  - University Computer Services Advisory Committee and several of its subcommittees
  - Chaired Morris Computing Facilities Review Subcommittee of UCS
  - Chaired Waseca Computing Facilities Review Subcommittees of UCS
  - Member of the Fiscal Policy, Time Sharing and Network Subcommittees

### UMM Service

#### Committees:

- \* Chair Strategic Positioning Task Force, 2005-07
- Member of the Director of Communications Search Committee
- Member of the World Wide Web Advisory Group, Integrated Marketing Group and Web Template Working Group
- Chair of the SAP Committee Fall 2004
- Member of the SAP Committee, Fall 2003 through December 2004

- Member of the Computer Science Search Committee (Rob Faux position), 2004-5
- Member of the Budget Task Force
- Mike Korth Review Committee
- Vice Chancellor for Academic Affairs Search Committee
- Chair Computer Science Search Committee - permanent position
- Chair Tenure and Promotion Level II Committee
- Chair Chancellor Search Committee
- Academic Support Committee
- \* Chair Campus Resources and Planning Committee, 2003-07
- Chair of Spanish Search Committee
- Single Quarter Leave Committee
- Chair of Information Services Strategic Group
- Prosper Assessment Committee
- Library Task Force
- Chair of Computer Science Search Committee for temporary faculty
- Activities Fee Review
- Academic Dean Review
- Admissions Subcommittee
- Curriculum
- General Education
- Library
- Research
- Administrative
- Horace T. Morse Award
- Morris Campus Resource and Planning
- Scholastic
- Division Chairs Group

### Professional Service Activities

- Assisted with the ACM Programming Contest at UMM, November 2004, 05, 06
- Co-chair of MICS 2004 Symposium held at UMM, April 16-17, 2004
- Reviewer of Clarke College's program in Computer Science and Computer Information Science
- \* Reviewer for ACM/SIGCSE Symposium
- President of the MICS Steering Committee
- Reviewer for MICS Symposium
- Officer of the MERITSS and MECC (computer systems) User's Association.
- Chaired the organizing committee for regional meetings of the MERITSS User's Association, the Mathematics Association of America and High School Mathematics Contest at UMM.
- Judge for the Morris Area High School Science Fair
- Organized the nomination of Mrs. Bernice Lund to the Horace T. Morse Award.
- \* Board of Directors of the Small College Computing/Midwest Instruction and Computing Symposium.
- Judge in local ACM programming contest (TAMU).
- Co-chairman of the 24th SCCS held at UMM, April 19-20, 1991

## Public Service Activities

Chair of the Economic Development subcommittee of the Blandin project  
Member of the West Central Technology Committee of the West Central Initiative Fund  
Member of UMM Speaker Bureau, made presentations on the Internet to the Retired Teachers Association, Alexandria (Nov 95 and 96), Corn Growers Association, Morris-Jan 96 and on telecommunications terminology and services to the Benson Technology Committee  
Member of the Minnesota Power Plant Siting Advisory Committee.  
Vice-President of Country Day Nursery.  
Secretary of Morris-Hancock Flying Club.  
Officer of Home and School Association.  
Assistant Scout Master, Boy Scout Troop No. 467.  
Leader of 9th Grade Confirmation Class.  
Member of the Stevens County Technology Transfer Task Force  
Member of the Benson Technology Committee