

# CURRICULUM VITAE

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## EDUCATION

- Ph.D. Computer Science, May 1990, North Dakota State University, Fargo, North Dakota.
- MS. Computer Science, May 1986, North Dakota State University, Fargo, North Dakota.
- BS. Computer Science, & BS. Mathematics (Double Major), March 1983, Moorhead State University, Moorhead, Minnesota.

## WORK EXPERIENCE

AUGUST 1999 TO PRESENT:

Professor and Chair, University of West Georgia, Carrollton, Georgia  
([www.cs.westga.edu](http://www.cs.westga.edu)).

Responsibilities & accomplishments include:

- Leading, managing, and administering the Department.
- Hiring, mentoring, evaluating, and managing Faculty, Staff, and student/graduate assistants. With the exception of one Faculty, I hired all the Faculty and Staff currently in the Department.
- Teaching undergraduate and graduate courses. These courses include two of the earliest and largest online offerings at UWG.
- Receiving national ranking by the U.S. News & World Report for 100% online MS in Applied Computer Science.
- Led efforts to revise the undergraduate curriculum to comply with Computing Curricula current recommendations.
- Led the Department's efforts to create a comprehensive assessment process to ensure continuous quality improvement.
- Prepared the ABET self-evaluation report and successfully obtained ABET Accreditation in 2002, and subsequent reaffirmation in 2008 & 2014.
- Continue to lead the Department's efforts to improve RPG rates when compared to national norms of similar institutions (as examples of success, retention rates in lower level classes increased by over 50%, graduation rates increased by nearly 40%).
- Continue to plan and implement various initiatives in support of teaching and learning (for example: csX tutoring and mentoring, tele-tutoring, lab designs, teaching studio configurations).
- Continue to develop and seek means of funding and support for various departmental initiatives to provide incentives and support for Faculty efforts (for example: transformation of face-to-face courses for online delivery, creation and adaptation of innovative teaching methods and topics).

- Led the Faculty's efforts to develop and launch a MS in Applied CS graduate program and four graduate certificates in computing; currently implementing plans for online delivery within the next three semesters.
- Continue to conduct various comprehensive program reviews for ABET, USG, and SACS.
- Led the efforts to create and support shared governance in the department by collaboratively working with the Faculty to develop bylaws, promotion and tenure criteria, and Faculty evaluation guidelines.
- Serving on departmental, college, and university-wide committees and task forces.
- Supporting the community's efforts for economic development and to enhance the workforce of the region and State (for example: working with the Carroll County Chamber of Commerce, being an integral part of support for the Carroll Tomorrow Project, assisting local companies locating and growing IT talents and expertise).
- Continue to be active in the community and participate in variety of activities in support of the community (for example: making presentations to the League of Women Voters, supporting Carroll County Humane Society activities).

**AUGUST 1991 TO AUGUST 1999:**

Assistant/Associate Professor (*Tenured earned ahead of time by exceptional performance in 1995-1996*), Western Illinois University, Macomb, Illinois.

- Taught several courses at the graduate and undergraduate levels, and directed students' research.
- Served in the role of the Deputy Chair of the Computer Science Department (1997-1999).
- Voted by students as the Outstanding Teacher of the Year in the department for five consecutive years.
- Selected as Western Illinois University Outstanding Teacher of the year in 1995.
- Participated in successful AACSB and NCA accreditation preparations and visits.
- Participated in a semester-long internship in the college of education dean's office.
- Served as the Graduate Studies Coordinator and Advisor.
- Recruited over 100 graduate students.
- Served on departmental, college and university wide committees.
- Served on the Industry Advisory Council.
- Served as a member of the University Honor Faculty.
- Served as the faculty advisor of the ACM & UPE.

**AUGUST 1992 TO AUGUST 1993:**

Assistant Professor (Tenure Track), Saint Cloud State University (ABET Accredited Department), St. Cloud, Minnesota.

- Taught at the graduate & undergraduate levels.
- Served on departmental and university wide committees.
- Conducted research in computer science.
- Served as the faculty advisor for the student chapter of the ACM.
- Served on the Industry Advisory Council.

- Served on the Accreditation Committee for CSAB (the accrediting agency of computer science at the time).
- Taught a 12-semester hour course in software engineering that required an extensive industry involvement.
- Managed the budget for department's equipment & other needs for Faculty.

#### **DECEMBER 1987 TO JUNE 1990:**

Research Assistant, North Dakota State University, Fargo, North Dakota.

- Developed and maintained a neural network simulator (NNS) running on the National Science Foundation (NSF) Cray X-MP/48 and IBM 3090-200E supercomputers under an NSF Fellowship grant.
- Developed and maintained a neural network user interface (NNUI) running on the IBM-PC & Sun workstations.
- Conducted research on supercomputing as well as neural networks.
- Participated in writing grants to support research.

#### **SEPTEMBER 1986 TO SEPTEMBER 1987:**

Senior Software Engineer, Control Data Corporation, Plymouth, Minnesota.

- Designed and implemented a wide range of software for Supervisory Control and Data Acquisition System (SCADA) for large-scale energy management systems.
- Developed software functional & design specifications.
- Interacted with customers as well as consultants.
- Supervised three programmers as well as being a mentor to new employees.

#### **VARIOUS CONSULTING JOBS:**

I have also consulted for various companies dealing with the development of computer systems for various applications. My consulting work includes:

- Bankers Systems Inc.
- Clark & Associates ([www.masterclock.com](http://www.masterclock.com)).

#### **PUBLICATIONS & PRESENTATIONS**

Abunawass, A., Rudolph, E., & Young, A. (2015). *“Supporting Social Equity and Educational Access with an Affordable Career-Focused Online Graduate Program in Computer Science,”* Conference on Meaningful Living and Learning in a Digital World 2015, Savannah, Georgia. May 2015.

Abunawass, A., Rudolph, E., & Young, A. (2015). *“Effective Strategies for Students Academic Support in a Fully Online Graduate Program in Computer Science,”* 21<sup>st</sup> Annual Online Learning Consortium International Conference 2015, October 2015.

Rudolph, E., Abunawass, A. (2015). *“Automating Academic Advising and Course Schedule Planning with a CLIPS Expert System,”* Proceedings of the 2015 International Conference on Artificial Intelligence, Las Vegas, NV. July 2015. 393.

Abunawass, A., Rudolph, E., & Young, A. (2014). *“Simple and Measurable Key Performance Indicators Create a Culture of Self-Reflection and Continuous Improvement,”* Online Learning Consortium International Conference 2014, October 2014.

Abunawass, A., Rudolph, E. (2014). *“Embracing eLearning as a Catalyst for Enhancing Program Viability, Marketability, and Curricular Innovation,”* The 13<sup>th</sup> International

- Conference on e-Learning, e-Business, Enterprise Information Systems, and e-Government 2014, Las Vegas, NV. July 2014. 161-162.
- Abunawass, A., Rudolph, E., & Young, A. (2013). "Supporting Economic Development with an Accessible, Affordable, Quality 100% online Master in Applied Computer Science," 19th Annual Sloan Consortium International Conference on Online Learning, November 2013. 161-163.
- Abunawass, A., Rudolph, E. (2013). "Enhancing Community and Program Delivery with Cohorts in a 100% Online Graduate Program in Applied Computer Science," The 12<sup>th</sup> International Conference on e-Learning, e-Business, Enterprise Information Systems, and e-Government 2013, Las Vegas, NV. July 2013. 289-290.
- Abunawass, A., & Rudolph, E. (2012). "A Curriculum and Support Model for a 100% Online Professional Masters in Applied Computer Science," Proceedings of the 11<sup>th</sup> International Conference on e-Learning, e-Business, Enterprise Information Systems, and e-Government 2012, Las Vegas, NV. July 2012. 214-215.
- Abunawass, A., Rudolph, E., & Young, A. (2012). "Creating Connections and Community in Computer Science using Blackboard IM," Blackboard Collaborate Connections Summit, New Orleans, LA, July 2012.
- Kazerouni, A., Shrewsbury, B., Morrow, K., & Abunawass, A. (2012). "A Framework to Control the Darwin-OP Using CLIPS," Proceedings of the WorldComp Conference on Artificial Intelligence 2012, Las Vegas, NV. July 2012.
- Abunawass, A., Rudolph, E., & Young, A. (2011). "Computer Science Experience: Tools and Techniques for an Effective Class in Computer Literacy." 17<sup>th</sup> Annual Sloan Consortium International Conference on Online Learning, October 2011.
- Bailie, F., Abunawass, A., Whitfield, D., & Petrovic, S. (April 2011), "Untangling the Maze of Pedagogical Strategies for Introductory Programming." Annual Conference of the Northeast Region of the Consortium for Computing Sciences in Colleges (Panel). 165-159.
- Abunawass, A., Young, A., & Rudolph, E. (2010). *Computer Science "eXperience:" Using Wimba Tools to Enhance Computer Science Education*. Wimba Connect 2010. July 2010.
- Bailie, F., Abunawass, A., & Whitfield, D. (October 2008). Student outcomes assessment: what is it? How do you make it work for you? *Proceedings of the 24<sup>th</sup> Annual Consortium for Computing Sciences in Colleges- Eastern Region (CCSCE 2008)*. Fredrick, Maryland. [Workshop]. 9-10.
- Abunawass, A., Bailie, F., & Whitfield, D. (June 2007). Assessment and its Role in Accreditation. *Proceedings of the International Conference on Frontiers in Education: Computer Science and Computer Engineering (FECS '07)*. Las Vegas, NV. 35-40.
- Rudolph, E., & Abunawass, A. (October 2006). Cheap, Flexible, and Secure Remote File Sharing with Samba, OpenVPN, and Apache. *Proceedings of the ACM Mid Southeast Conference*, Gatlinburg, TN.
- Bailie, F., Abunawass, A., Houle, B., & Witfield, D. Guidelines and suggestions for ABET accreditation. *Proceedings of the 21<sup>st</sup> Annual Consortium for Computing Sciences in Colleges, Easter Conference (CCSCEC '05)*, Iona College, New Rochelle, N.Y. 83-85.
- Lloyd, W., Abunawass, A., & Rudolph, E. (April 2005). Closing the Infinite Loop on Assessment with COMPASS. *Best Assessment processes VII Symposium*, Terre Haute, IN. [Workshop]

- Abunawass, A., Lloyd, W., & Rudolph (June 2004), COMPASS: A CS Program Assessment Project, *Proceedings of the 9<sup>th</sup> Annual ACM SIGCSE Conference on Innovation and Technology in Computer Science Education (ITiCSE 2004)*, Leeds, England, UK. 127-131.
- Abunawass, A., Boucher-Owens, B., Baker, L., Domadaran, M., Whitfield, D., & Bailie, F. (April 2004): Approaches to Self-Assessment of Computer Science Departments and Programs. *Proceedings of the CCSC 2004 Conference*, Austin, Texas. [Panel Chaired by Abunawass, A.]. 297.
- Abunawass, A., Boucher-Owens, B., Baker, L., Domadaran, M., Whitfield, D., & Bailie, F. (2004). Approaches to Self-Assessment of Computer Science Departments and Programs. *Journal of Computing Sciences in Colleges*. Vol. 19, No. 4, 264.
- Bailie, F., Abunawass, A., & Whitfield, D. (October 2004): Assessment made easy. *Proceedings of the CCSEC 2004 Conference*, Biltmore, Maryland. [Workshop]
- Abunawass, A., Lloyd, W., & Rudolph, E. (October 2004). *Our experience with online student feedback*. *Proceedings of the 2004 ACM Mid-Southeast Conference*, Gatlinburg, TN. [Presentation]
- Abunawass, A., Lloyd, W., & Rudolph, E. (October 2003). Computer Science Assessment Program. *Proceedings of the 2003 ACM Mid Southeast Conference*, Gatlinburg, TN.
- Abunawass, A., Lloyd, W., & Rudolph, E. (October 2003). Computer Science Assessment Program. *Proceedings of the ACM Mid Southeast Conference*, Gatlinburg, TN. [Presentation]
- Abunawass, A., Lloyd, W., & Rudolph, E. (October 2003). Moodle: A Simple and Intuitive Open-Source Course Management System. *Proceedings of the ACM Mid Southeast Conference*, Gatlinburg, TN.
- Abunawass, A., Simmons, S., Bowen, M. & Lloyd, W. (November, 1999). Current issues in recruiting and retention of computer science faculty: Are we in crisis? *Proceedings of the ACM Mid-Southeast Chapter Fall Conference '99*. [Panel Chaired by Abunawass, A.]
- Ault, K. Hainline, F. & Abunawass, A. (1999). Emerging issues in collective bargaining: Technological expectations for support staff. *Proceedings of the Emerging Issues in Business & Technology 1999 Conference*. 257-263.
- Abunawass, A. & Rosenberg, S. (1999). Distributed object oriented neural network simulator in JAVA: a research tool. *Proceedings of the International Conference on Artificial Intelligence IC-AI '99*. 513-516.
- Abunawass, A. Maskarinec, M. & Neumann, K. (1998). An integratable unit based computer science distance learning curriculum design for the ACM/IEEE curricula 1991. *Proceedings of the ACM SIGCSE/SIGCUE & CTI ITiCSE '98 Conference*. 18-20.
- Abunawass, A., Neumann, K. & Maskarinec, M. (1998). Heuristics for the design of an effective distance learning curriculum. *Proceedings of IASTED International Conference on Computers & Advanced Technology in Education*. 69-72.
- Abunawass, A., Bhella, O., Ding, M., & Li, W. (1998). Fuzzy clustering improves convergence of the backpropagation algorithm. *Proceedings of the 1998 ACM Symposium on Applied Computing*. 277-281.
- Abunawass, A. M., Fisher, T. Neumann, K., Devolder, D., Schoenberger, A., & Misktanic, M. (November, 1997). Emerging Technologies Bring Distance Learning to your

- Doorstep. *Presented at the Emerging Issues in Business & Technology Conference.* Myrtle Beach, South Carolina.[Panel Chaired by Abunawass, A.]
- Abunawass, A. M., Fisher, T., Neumann, K., Devolder, D., Schoenberger, A., & Misktanic, M. (November, 1997). Assessment of Learning Technologies. *Presented at the Emerging Issues in Business & Technology Conference.* Myrtle Beach, South Carolina.[Panel Chaired by Abunawass, A.]
- Abunawass, A., Fisher, T., & Schoenberger, A. (1996). Software engineering: a year long capstone course. *Proceedings of the International Association of Management Conference Computer Science Track.* 98-102.
- Abunawass, A., Bowen, M., Fisher, T., Neumann, K., & Schoenberger (1996). Ethical issues in teaching computer science: a dialog. *Proceedings of the 29th Annual Small College Computing Symposium.* 70-73.
- Abunawass, A., Betten, M., & Schindler, T. (1996). Modeling labor-leisure choice of microeconomics theory using genetic algorithms. *Proceedings of the International Association of Management Conference Computer Science Track.* 64-69
- Abunawass, A., & Ding, M. (1996). An approach to fuzzy clustering of error signals in the backpropagation model. *Proceedings of the International Association of Management Conference Computer Science Track.* 49-52.
- Abunawass, A. M., Bowen, M., Fisher, T., Sheng, E. & Schoenberger, A. (November, 1996). Ethical issues in teaching computer science: A Dialog. *Presented at the ACM Southwestern Regional Conference.* Gatlinburg, Tennessee.[Panel Chaired by Abunawass, A.]
- Abunawass, A. M., & Sheng, E. (1996). On Current Trends of Computer Science Education. *Proceedings of the ACM Southeastern Regional Conference.*
- Peng, C., Abunawass, A., Leff, L., Flynn, R. (1995). Using genetic algorithms to layout pattern on material for the golf-bag industry. *Proceedings of the Conference on Expert Systems Applications & Artificial Intelligence- EXPERSYS-95.* 235-239.
- Gottwald, O., Soegiyono, H., Leff, L., Abunawass, A., Pomatto, D. (1995). The student worker scheduling system. *Proceedings of the Conference on Expert Systems Applications & Artificial Intelligence- EXPERSYS-95.* 293-298.
- Bowen, M., & Abunawass, A. M. (1995). Ethical issues in teaching computer science: perspectives & issues. *Proceedings of the ACM Southeastern Regional Conference.*
- Abunawass, A. M., Bowen, M., Fisher, T. & Neumann, K. (October, 1995). Ethical issues in teaching computer science. *Presented at the Midwest Computer Conference.* Loyola University, Chicago, Illinois.
- Abunawass, A. M. (1995). *Artificial Life.* *Proceedings of the 28th Annual Small College Computing Symposium.* 1-6.
- Fisher, T. G., & Abunawass, A. M. (1994). Computer Ethics: A Capstone Course. *Proceedings of the ACM Conference on Ethics in the Computer Age,* 74-75.
- Fisher, T. G., & Abunawass, A. M. (1994). Closed Labs: An effective approach to teaching semantics in CS1. *Proceedings of the 28th Annual Small College Computing Symposium.* 100-105.
- Abunawass, A. M., & Owen, C. B. (1994). A study of the effect and effectiveness of noise injection during network training. *Proceedings of the IEEE World Congress on Neural Networks Conference.*

- Abunawass, A. M., & Owen, C. B. (1994). A simulated annealing based backpropagation model improves the convergence rate of the network. *Proceedings of the IEEE World Congress on Neural Networks Conference*.
- Abunawass, A. M., & Fisher, T. G. (1993). Our experience in implementing closed laboratories in the computer science curriculum. *Proceedings of the 86th annual meeting of the Illinois State Academy of Science*. 47.
- Abunawass, A. M. (1994). How to get A-Life! *Proceedings of the 87th annual meeting of the Illinois State Academy of Science*. 41.
- Abunawass, A. M. (1994). Artificial Life: An introductory course. *Proceedings of the 8th Annual Midwest Computer Conference*. 68.
- Owen, C. B., & Abunawass, A. M. (1993). Application of simulated annealing to the backpropagation model improves convergence. *Proceedings of the SPIE conference on the Science of Artificial Neural Networks II*. 269-276.
- Fisher, T. G., & Abunawass, A. M. (1993). Incorporating closed laboratories in the computer science curriculum. *Proceedings of the 26th Small College Computing Symposium*, 78-86.
- Abunawass, A. M., & Owen, C. B. (1993). A stochastic approach to the backpropagation using simulated annealing. *Proceedings of the ICNN '93, IEEE International Conference on Neural Networks*, 124-128.
- Abunawass, A. M., & Owen, C. B. (1993). A statistical analysis of the effect of noise injection during neural network training. *Proceedings of the SPIE conference on the Science of Artificial Neural Networks II*. 362-371.
- Abunawass, A. M., & Fisher, G. T. (1993). An alternate second course in the artificial intelligence sequence. *Proceedings of the 26th Small College Computing Symposium*, 44-51.
- Abunawass, A. M. (1992). The negative transfer problem in neural networks. *Proceedings of the SPIE Conference on the Science of Artificial Neural Networks I*, 124-130.
- Abunawass, A. M. (1992). Biologically based machine learning paradigms: An introductory course. *Proceedings of the 24th ACM SIGCSE Technical Symposium on Computer Science Education*, 87-91.
- Maki, W. S., & Abunawass, A. M. (1991). A connectionist approach to conditional discriminations: Learning, short-term memory, and attention. In M. L. Commons, S. Grossberg, & J. E. R. Staddon (Eds.), *Quantitative analysis of behavior: Neural network models of conditioning and action* (pp. 241-278). Hillsdale, NJ: Lawrence Erlbaum Associates. [book chapter]
- Abunawass, A. M., Bukhres, O., Fisher, T. G., & Magel, K. (1991). A neural network software environment for research and education. *Proceedings of the 24th Annual Small College Computing Symposium*. 125-132.
- Abunawass, A. M. (1991). The negative transfer problem in neural networks: A solution. *Proceedings of the IEEE International Joint Conference on Neural Networks, 1*, 881-886.
- Abunawass, A. M., Bukhres, O., Fisher, T. G., & Magel, K. (1990). A first undergraduate course in neural networks. *Proceedings of the 21st ACM SIGCSE Technical Symposium*. 240-244.

- Abunawass, A. M., Bukhres, O., Fisher, T. G., & Magel, K. (1990). Neural computing in the computer science curriculum. *Proceedings of the 23rd Annual Small College Computing Symposium*. 229-235.
- Maki, W. S., & Abunawass, A. M. (1989). A neural network simulator for supercomputers. *Behavior Research Methods, Instruments, & Computers*, 2, 225-239.
- Abunawass, A. M., Juell, P., & Wasson, J. (1989). SEDES: Special Education Diagnostics Expert System. *Proceedings of the 22nd Annual Small College Computing Symposium*, 110.
- Abunawass, A. M., Fisher, T. G., & Magel, K. (1989). Knowledge Acquisition using Generalized Problem Domain (GPD). *Proceedings of the AAAI International Joint Conference on Artificial Intelligence Workshop on Knowledge Acquisition*, 33-36.
- Abunawass, A. M., Fisher, T. G., & Magel, K. (1989). GPD: Generalized Problem Domain. *Proceedings of the Annual Conference of the International Association of Knowledge Engineers (IAKE)*, 160-173.
- Abunawass, A. M., & Maki, W. S. (1989). Cumulative negative transfer during successive training: Analysis of a second sequential learning problem. *Proceedings of the IEEE International Joint Conference on Neural Networks*, 2, 623.

## **GRANTS**

- *Integrating the Sun Platform in the CS Curriculum*. Sun Microsystems Academic Equipment Grant, \$40,000. 8/2002- 8/2004.
- *Math Foundations in CS 1 & 2 for less Selective Institutions*. NSF CCLI-A&I Award No. DUE-0088204, \$45,000 for 8/2000-8/2003.
- *NTP Software Project*. W. Clark and Associates, Ltd. \$690 for 8/1994.
- Instructional Aid Grant for Cadre's Teamwork CASE tool. Cadre Technology Inc. \$226,000 for 9/92-9/93.
- *Application of simulated annealing to the backpropagation model to improve convergence*. Minnesota Supercomputing Institute, \$50,000 for 1/93-1/94.
- *Dynamic associability as a solution to the sequential learning problem in neural networks*. Northwest Academic Computing Consortium, WICHE. \$25,000 for 8/88-8/89.

## **COMMUNITY PRESENTATIONS:**

I have made over 13 presentations to various community organizations. Of notable mention, the *Floyd Hoskins Great Decisions Series* to the League of Women Voters.

## **COMMITTEES**

Served on several committees in several capacities at several institutions. This is a list of the most recent committee obligations:

### **DEPARTMENT:**

- Undergraduate Curriculum Committee
- Graduate Curriculum Committee
- Search and Selection Committee
- Service Courses Committee

### **COLLEGE:**

- Executive Committee



- Chair Evaluation Committee
- Master Planning Committee
- Summer School Policy Committee
- Judge of Eclectic

**UNIVERSITY:**

- Technology Planning Committee
- Graduate Research Awards Committee
- Committee on Graduate Studies

**PROFESSIONAL ORGANIZATIONS**

During my tenure in academe, I have served and participated in several professional organizations. This is a list of some of them:

- Program Evaluator *ABET*
- Chair of the *Illinois State Academy of Science* Computer Science Division (1994-1999)
- Member *Upsilon Pi Epsilon* (Computing Sciences Honor Society)
- Member *Association for Computing Machinery* (ACM)
- Member *Institute of Electric and Electronics Engineers* (IEEE)
- Member *American Association of University Professors* (AAUP)
- Reviewer for several national and international conferences (including: ACM SIGCSE, ITiCSE, WWW/Internet 2005, WEBIST 2005, etc.)