

Shelby Solomon Darnell

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Education

Bachelor of Science in Computer Engineering, Auburn University, 2003

Master of Engineering in Software Engineering, Auburn University, 2006

Ph.D. in Computer Science, Clemson University, 2009-present

Expected to complete dissertation by May 2012.

Computer Languages

C, C++, C Sharp, Java, PHP, HTML, LISP, MatLab.

Research Interests

1. Computational Intelligence
2. Biometrics
3. Computer and Machine Vision
4. Algorithms and algorithm optimization
5. Computer-human learning

Employment, Auburn University, Auburn, AL 36832

Bellsouth Minority Engineering Program, Mentor-Tutor *Spring 2001 - Spring 2002*
Mentored two freshman pre-engineering students, each semester, about campus living and adjusting to school. Presented lecture about Study Skills in front of the entire assembly of BMEP students, close to 300 students, in the BMEP program on Sunday afternoons. Spent several hours a week tutoring the following courses:

1. Calculus I-III
2. Differential Equations
3. Computer Applications 1210, 2210 - Fundamentals of Computing I & II
4. Engineering Physics I & II

Assistant System Administrator, Department of Computer Science and Software Engineering (CSSE) *Summer 2002 to Spring 2003*

Duties included:

1. Troubleshooting general computer problems for professors and graduate students
2. Linux and Windows network administration
3. Linux server setup
4. Computer lab monitor and application administrator

College of Engineering Tutor *2002-2003*

Member of the College of Engineering tutoring staff who catered only to Engineering students.

I tutored the following courses in this position:

1. Calculus I - III
2. Differential Equations
3. Computer Applications 1210, 2210 - Fundamentals of Computing I & II
4. Computer Applications 2710 - Software Construction
5. Computer Applications 3270 - Introduction to Algorithms
6. Computer Applications 3700 - Software Modeling and Design
7. Engineering Physics I & II

Undergraduate Teaching Assistant, Computer Science *Summer 2003*

Assisted Graduate Teaching Assistant in answering student questions about class work.

COMP 1000 Personal Computer Applications Summer 2003

Graduate Teaching Assistant, Computer Science *Fall 2003 to Spring 2005*

Duties included presentation of lectures, supervision of group work, help students finish in class lesson objectives, and help prepare the final exam for the course.

COMP 1000 Personal Computer Applications Fall 2003-Spring 2005

Graduate Research Assistant *2004-2005*

Worked with Professor Cheryl Seals; did visual programming of educational simulations with end user programming, intelligent agents, usability evaluation, computer supported collaborative work and minimalism.

Computer System Administrator for Student-Athlete Support Services (SASS) *2004-2005*

In this position I had four employees who helped troubleshoot computer problems for SASS. My staff and I jointly coordinated the movement of SASS computer systems from one installation to a new building to house several student-athlete services. I assigned programming projects to my staff as well as set their working hours so that the main SASS computer lab was monitored from 7AM until 10PM Monday through Friday.

Employment, Clemson University

Graduate Research Assistant

2009-present

Apply computational intelligence techniques to biometric methods dealing with the periocular region of the eye.

Other Employment

Software Engineer Greenville, TX

L-3 Communications Mission Integration Division

January 2006 to July 2009

During my time at L-3Comm I performed several different jobs exceeding expectations for each position or challenge with which I was faced. The following is a list of the major tasks I completed:

1. designed and implemented client-server enterprise software using the C and Java programming languages
2. designed and implemented messaging for hardware to software communication
3. expanded tools in C Sharp for in-house DOM software
4. implemented entire set of unit tests for in-house DOM software
5. created and maintained development build/task automation script environment using Ant for new project endeavor
6. professional recruiting for company at a National Convention
7. built Systems Integration Lab for new project effort
8. organized and oversaw tasks to prepare a aircraft to be sold to our customer as a Junior project engineer

Publications

1. S.Darnell, Alleviating Escape Panic Using Evolutionary Intelligence, Auburn University Theses and Dissertations, May 2006.

Conferences

Juan Tapia Celebration of Diversity in Computing

Fall 2005

Three day conference on a variety of Computer Science disciplines in Albuquerque, New Mexico.

Grant Funding

Graduate Reserach Assistant under Dr. Damon Woodard, Image and Video Analysis Lab (IVAL) and Center for Academic Studies in Identity Sciences (CASIS).

Active Duration: August 1, 2009 - Present.

Awards and Honors

1. Clemson University Graduate Research Assistantship in Biometrics, 2009.
2. Purdue University PhD Fellowship in Computer and Information Technology, 2009 (Awarded, not accepted).
3. Auburn University Part-time Graduate Research Assistant in Game Concepts and Technology with Dr. Cheryl Seals, 2003-2005.
4. Auburn University Part-time Graduate Teaching Assistantship, 2003-2005.
5. AU Board of Trustees Scholarship to Auburn University, 2000-2003.
6. Alabama Power Foundation Scholarship to Auburn University, 2001-2002.
7. William F. and Brenda W. Hayes Scholarship to Auburn University, 2001-2002.
8. Minority Engineering Program Scholarship to Auburn University, 2000-2001.
9. Tau Sigma National Honor Society Inductee, 2001 -
A transfer student honor society for those in the top 10 percent of their class.
10. Dean's List, 1999 - University of Alabama in Huntsville.

Professional Memberships

1. Institute of Electrical and Electronics Engineers (IEEE) Computer Society, since 2008.
2. Association for Computing Machinery (ACM), since 2009.