

Kelly Cannon

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EDUCATION ◇ **University of Minnesota**

Doctor of Philosophy, Computer Science, expected graduation May 2009

- Completed written preliminary exams (WPE) in AI1, AI2, and intelligent agents
- Completed Preparing Future Faculty Program

Master of Science, Computer Science, expected graduation May 2008

Minor, Educational Psychology, expected graduation May 2008

◇ **Mercer University**

Bachelor of Science, Computer Science, May 2003

Bachelor of Arts, Political Science, May 2003

Bachelor of Arts, Spanish, May 2003

Minor, Mathematics, May 2003

TEACHING ◇ **Teaching Assistant**, University of Minnesota, Minneapolis, MN (August 2005–Present)

EXPERIENCE

- Served as a teaching assistant for classes ranging from introductory computer science to graduate level advanced algorithms
- Met with students weekly for tutoring and advising
- Responsible for creation of assignments and exams as well as grading
- Led weekly lab sessions and substituted for the professor during lecture as necessary

◇ **Instructor**, University of Minnesota, Minneapolis, MN (May 2007–August 2007)

- Combined active learning and traditional lecture to teach Java during a summer course with lengthy (2 hour 40 minutes) biweekly sessions
- Selected new textbook, designed syllabus, created all assignments, lectures, and activities for the second computer science course (CSCI1902) taught in Java
- Received excellent reviews from students on all aspects of course

◇ **Founder and Facilitator**, University of Minnesota Technology Day Camp, Minneapolis, MN (May 2005–May 2007)

- Organized and served as lead instructor for a yearly summer camp teaching 15-30 middle school students about the basics of hardware and software
- Prepared over sixty hours of class material with a focus on active learning
- Worked with students to build a variety of advanced hardware projects requiring power tools and soldering irons and to create software ranging from robotic dances to movies
- Received superior reviews from students with surveys showing a greatly increased interest in technology after participation in the program and from program supporters and faculty

- ◇ **Co-Facilitator**, Mercer University, First Year Experience Program, Macon, GA (August 2000–May 2003)
 - Taught freshman English class with approximately 25 undergraduate students
 - Selected textbooks, prepared lesson plans, and met with students individually to review work and progress
 - Received superior reviews from both students and supervisors
 - Advised/instructed over 30 new and returning co-facilitators (August 2002–May 2003)
- ◇ **Visiting Volunteer Faculty**, McEvoy Middle School, Macon, GA (August 2000–May 2002)
 - Taught “Great Books” class with approximately 30 sixth and seventh graders
 - Prepared lessons plans with a strong focus on active learning
 - Introduced young students to open discussion while maintaining classroom integrity

RESEARCH INTERESTS Human Computer Interaction
 Human Robot Interaction
 Computer Science Education

- RESEARCH PROJECTS
- ◇ Designing an intelligent, dynamic task management system to allow for increased productivity
 - ◇ Investigating the potential for fully integrated task management systems utilizing the capabilities of computers and cell phones
 - ◇ Creating an intelligent, collaborative task management system for increased success in achieving complex tasks

- PAPERS
- ◇ K. Cannon, M. Anderson LaPoint, N. Bird, K. Panciera, H. Veeraraghavan, M. Gini, and N. Papanikolopoulos, “Using Robots to Raise Interest in Technology Among Underrepresented Groups,” *IEEE Robotics and Automation Magazine*, vol. 14, no. 2, pp. 73-81, 2007.
 - ◇ K. Cannon, K. Panciera, and N. Papanikolopoulos, “Second annual robotics summer camp for underrepresented students,” in the *Proceedings of the 12th Annual SIGCSE Conference on Innovation and Technology in Computer Science Education*, vol. 39, no. 3, pp. 14-18, 2007.
 - ◇ K. Cannon, M. Anderson LaPoint, N. Bird, K. Panciera, H. Veeraraghavan, M. Gini, and N. Papanikolopoulos, “No Fear: University of Minnesota Robotics Day Camp Introduces Local Youth to Hands-on Technologies,” in the *Proceedings of the 2006 IEEE International Conference on Robotics and Automation*, pp. 363-368, 2006
 - ◇ M. Anderson LaPoint, I. Burt, K. Cannon, C. Hays, B. Miller, and N. Papanikolopoulos, “Relative Collaborative Localization Using Pyroelectric Sensors,” in the *Proceedings of the 2005 IEEE International Conference on Intelligent Robots and Sensing*, pp. 3517-3522, 2005.
 - ◇ A. Drenner, M. Anderson LaPoint, I. Burt, K. Cannon, C. Hays, A. D. Kottas, and N. Papanikolopoulos, “Increasing the scout’s effectiveness through local sensing and ruggedization,” *Proceedings of the 2004 IEEE International Conference on Robotics and Automation*, vol. 2, pp. 1406-1411, 2004.
 - ◇ K. Cannon and D. Riley, “Java simulation and robot modeling of the Cataglyphis Bicolor,” *Journal of Computing Sciences in Colleges*, vol. 19, no. 3, pp. 110-123, Jan. 2004.
 - ◇ K. Cannon, “A nation divided: how technology influences the American political process,” *Journal of Computing Sciences in Colleges*, vol. 17, no. 2, pp. 167-177, Dec. 2001.

- HONORS
- ◇ **Anita Borg Memorial Scholarship** (August 2007–Present)
 - ◇ **National Science Foundation (NSF) Fellowship** (May 2004–May 2007)
 - ◇ **Computer Science Graduate Student Association (CSGSA) President**, University of Minnesota (May 2004–Present)
 - ◇ **Grace Hopper Scholarship** (October 2004)
 - ◇ **Graduate Student Fellowship**, University of Minnesota (August 2003–May 2004)
 - ◇ **Phi Kappa Phi Award of Excellence** (August 2003–May 2004)
 - ◇ **Summa Cum Laude**, Mercer University (May 2003)
 - ◇ **Mercerian Award**, Mercer University, Awarded for academic excellence, campus involvement, and community service (May 2003)
 - ◇ **Departmental Honors in Computer Science**, Mercer University (May 2003)
 - ◇ **Departmental Honors in Political Science**, Mercer University (May 2003)
 - ◇ **NSF Research Experience for Undergraduates**, Augsburg College (June 2002–August 2002)
 - ◇ **Outstanding Computer Science Senior**, Mercer University (April 2002)
 - ◇ **Outstanding Political Science Student**, Mercer University (April 2002)
 - ◇ **Cervantes Award for the Outstanding Student in Spanish**, Mercer University (April 2002)
 - ◇ **Outstanding Computer Science Junior**, Mercer University (April 2001)
 - ◇ **Collegiate Fellowship**, Mercer University (August 1998–May 2003)

- AFFILIATIONS
- ◇ **IEEE**
 - ◇ **ACM**
 - ◇ **Upsilon Pi Epsilon**, International Computer Science Honor Society
 - ◇ **Phi Kappa Phi**, International Honor Society
 - ◇ **Omicron Delta Kappa**, National Leadership Honor Society
 - ◇ **Pi Sigma Alpha**, National Political Science Honor Society
 - ◇ **Phi Sigma Iota**, International Foreign Language Honor Society
 - ◇ **Phi Eta Sigma**, National Honor Society

- VOLUNTEER TEACHING EXPERIENCE
- ◇ **Mentor**, Tronix Team, Minneapolis, MN (October 2004–August 2007)
 - Met with a group of approximately 10 girls from local elementary and middle schools
 - Assisted with individual and group projects promoting technical skills
 - Helped girls to build self esteem as well as an interest in technical fields
 - ◇ **Exhibit Volunteer/Educator**, Minnesota Science Museum, St. Paul, MN (December 2003–August 2004)
 - Presented special robotics exhibits to both adults and children alike
 - Led large classroom discussions about the current and future state of robotics
 - ◇ **Volunteer Tutor**, Macon, GA (August 1998–May 2003)
 - Met with two underprivileged minority girls approximately once a week for five years
 - Reviewed materials covered in class
 - Presented new related materials not covered in class
 - Served as a role model and friend

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- WORK EXPERIENCE
- ◇ **Research Assistant**, Distributed Robotics Lab, University of Minnesota, Minneapolis, MN (August 2003–August 2006)
 - Worked to create and produce small reconnaissance robots for military operations (COTSM Scout)
 - Coded and streamlined basic behaviors for MegaScouts
 - Presented dozens of presentations and informative sessions about the development of the Scouts including the Scout 2000s, COTS Scouts, MegaScouts, and COTSM Scouts
 - ◇ **Researcher**, Department of Computer Science, Augsburg College, Minneapolis, MN (June 2002–August 2002)
 - Designed and implemented simulation of *Cataglyphis Bicolor* in its natural environment
 - Created and coded a robot with navigational strategies similar to that of the *Cataglyphis Bicolor*
 - ◇ **Programmer**, Southwest Research Institute, Warner Robins, GA (May 2001–August 2001)
 - Established automated software testing department
 - Developed testing scripts for all applications under development
 - Held private tutoring sessions with fellow programmers to teach the basics of automated testing
- REFERENCES Available on request