

Ashley R. Robinson

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Education

Ph.D. Computer Science with an emphasis in Human-Computer Interaction, Expected graduation: Spring 2015
Virginia Polytechnic Institute and State University, Blacksburg, VA (GPA: 3.76/4.0)

M.S. Computer Science with an emphasis in Human-Computer Interaction, May 2011
Virginia Polytechnic Institute and State University, Blacksburg, VA (GPA: 3.76/4.0)

B.S. Computer Science, May 2006
Norfolk State University, Norfolk, VA (GPA: 3.58/4.0)

Research Experience

Underrepresented Girls and Computer Science (Spring 2011-Present)

- Using an embedded mixed methods approach to investigate the attitudes of African American middle school girls toward computer science and the factors that influence these attitudes
- Coordinated and conducted computer science workshop interventions using a quasi-experimental nonequivalent control group design
- Collected data through surveys and focus group interviews
- Analyzing data through content analysis and inferential statistics using SPSS

Slate Technologies and Student Collaboration (Summer 2011-Spring 2012)

- A naturalistic inquiry approach was used to investigate the ways in which tablet technologies influence collaboration amongst undergraduate engineering majors
- Field notes were generated from classroom observations and coded for themes
- Member checking was conducted with the lead instructors of the observed courses for validation

Tablet PC Support of Learning Styles (Fall 2010-Spring 2011)

- Descriptive statistics was used to investigate the ways in which tablet technologies support various learning styles amongst undergraduate engineering majors
- The data was collected through surveys
- Responses from free response questions were used to supplement quantitative data

STAGES (Spring 2008-Fall 2010)

- A quasi-experimental design was used to explore the affect that non-linear authoring and interaction has on creativity
- Used OmniGraffle to create wireframes, user flows, and the interaction design mockups of a hyper-drama story authoring tool for K-12
- Assisted in developing the tool using C# and XML
- Implemented the system in the classroom and collected data using surveys
- Data was analyzed using descriptive statistics in JMP
- Liaison between the participating school districts and the research/development team

Card-table (Spring 2008)

- Used task scenarios to investigate various techniques for interacting with large horizontal displays to make sense of large amounts of information
- Observed how users interacted with virtual note cards using gesture, voice, and a PDA
- Usability was evaluated through surveys, observations, and task time
- Inferential Statistics was used to analyze quantitative data
- Developed the voice interaction component for the note-card system using Microsoft Speech SDK

Select Publications

A. Robinson* and M. Pérez-Quiñones. Underrepresented Middle School Girls: On the Path to Computer Science through Paper Prototyping. *ACM Symposium on Computer Science Education (SIGCSE)*, 2014.

R. Beaton, A. Robinson*, and M. Pérez-Quiñones. Fostering Collaboration Using Personal Tablet Devices: Challenges and Reflections on Space and Place. *Conference on Higher Education Pedagogy*, 2014.

A. Robinson*, C. Amelink, and H. Matusovich. The Role of Slate Enabled Technology in Collaboration. *Computers in Education Journal*, vol. 23, no. 2, 2013.

- S. Kothaneth, A. Robinson*, and C. Amelink. Tablet PC Support of Students' Learning Styles. *Journal of Systemics, Cybernetics and Informatics*, vol. 10, no. 6, 2012.
- S. Kothaneth, A. Robinson*, and C. Amelink. Work in Progress: Using Role-Playing as a Training Technique for Faculty. *American Society for Engineering Education Conference, 2012*.
- A. Robinson*, C. Peng, F. Quek, and Y. Cao. Interacting with Stories. *2nd Workshop on Child, Computer and Interaction, 2009*.
- C. Miller, A. Robinson*, R. Wang, P. Chung, and F. Quek. Interaction techniques for the analysis of complex data on high-resolution displays. *International Conference on Multimodal Interfaces, 2008*.
- A. Robinson*, R. Wang, T. Lyons, and E. McPherson. Tommy's World. *Games+Learning+Society Conference, 2008*.

Work Experience

Virginia Tech, College of Engineering (Fall 2010-Present)

Instructional Technology Team Lead

- Hire, train, and manage undergraduate student assistants that support pen-based technology in the classroom
- Create and maintain online tablet PC software training material
- Support professors and students using pen-based technologies in the classroom by teaching faculty development courses and providing in-class support
- Liaison between faculty and internal/external instructional technology resources

Virginia Tech (Fall 2006-Spring 2007)

Teaching Assistant, Introduction to Java

- Assisted students with programming assignments
- Provided guidance to students in their labs and gave lectures as needed

IBM, Rochester, MN (Summer 2005)

Software Engineering Speed Team

- Tested and debugged customer-like business applications
- Insured total integration of the application
- Developed team work and leadership skills through various seminars

Accomplishments

- Diversity Scholar Award Recipient (Fall 2014)
- Google United Negro College Fund Scholarship Recipient (Spring 2013)
- Best Presentation Award, International Multi-Conference on Engineering and Technological Innovation (Summer 2011)
- 2nd Place, Virginia Tech Graduate Student Association Research Symposium (Spring 2011)
- NSF Ph.D. Fellowship Award Recipient (Fall 2007)
- 2nd Place, Norfolk State University Senior Seminar Computer Science Colloquium (Spring 2006)
- Upsilon Pi Epsilon International Honor Society (Spring 2006)

Leadership

- Leadership Team - New Fire Movement Collegiate Ministry (Summer 2011-Present)
- Assistant Director - Radford C.O.G.I.C Youth Ministries (Fall 2010-Fall 2012)
- Technology Chair - Alpha Kappa Alpha Sorority, Inc. (Spring 2011-Fall 2011)
- Team Lead - STAGES Research Project (Spring 2008-Fall 2010)
- Secretary - Radford C.O.G.I.C. Youth Ministries (Spring 2007-Fall 2011)
- Treasurer - Black Graduate Student Organization (Fall 2009-Spring 2010)

Service

- Women in Computing Day Demonstration/Workshop (Spring 2009, 2010, 2013, 2014)
- ASEE Conference 2012 paper reviewer (Fall 2011-Spring 2012)
- IMETI Conference 2012 paper reviewer (Spring 2012)
- Summer HCI REU Program Mentor (Summer 2009)
- CHI Conference student volunteer (Spring 2008, Spring 2010)