

EDUCATION:

- Georgia Institute of Technology (GT)** Atlanta, GA
Computer Science PhD Student
GPA 4.0, expected graduation May 2012
- University of Pennsylvania (Penn)** *in progress*
Philadelphia, PA
Masters of Computer and Information Technology
GPA 3.91/4.0
- Carnegie Mellon University (CMU)** May 2008
Pittsburgh, PA
BS in Electrical and Computer Engineering with an additional major in Spanish.
GPA: 3.57/4.0, Graduation with University Honors August 2005

ACADEMIC PROJECTS:

- Cross-Cultural Comparisons of Social Expectations of Individuals with Autism, GT** Atlanta, GA
Along with 2 other students I am exploring the expectations of social and adaptive behaviors in individuals with Autism and other intellectual disabilities in four cultures: Kuwait, Pakistan, Korea, and the United States. We hypothesize that culture mediates the expectations society has for these individuals. Preliminary findings indicate that factors such as religion, culture, and socio-economic status lead to differing attitudes towards these individuals and the expectations parents and teachers have for them. The design of REACT will be greatly informed by our findings regarding differing cultural views on socially appropriate behavior. *in progress*
- REACT – Facilitating the Authoring of Social Skills Instructional Modules, GT** Atlanta, GA
I am developing an authoring tool designed to help parents, teachers, and other caregivers to create Refl-ex instructional modules. They will also be able to share these modules. My approach to aiding authors in creating these modules uses automated critiquing, collaborative problem solving, and crowdsourcing techniques. The authoring tool, I call the Refl-ex Authoring and Critiquing Tool (REACT), will help non-experts (i.e. authors who have little or no knowledge of instructional strategies) create interactive social scenarios personalized to a particular individual with HFA. The technology will assist by advising the author on instructional strategies, and on scenario creation. *in progress*
- Refl-ex - Tool for Social Skills Development in Individuals with HFA, GT** Atlanta, GA
I am designing a system to help adolescents and young adults with HFASD in the US and Kuwait to rehearse and learn social skills with reduced aid from parents, and other caregivers. The objective is to develop technology to teach effective problem solving by allowing the individual to experience social situations and choose appropriate responses to unexpected events. The technology also assists and supports reflecting on those experiences, providing the individual with an opportunity to process information that can be recalled for later use. An exploratory user study has been conducted, and has informed the next steps for the project. *in progress*
- iExpress - System to Detect and Contextualize Stereotypical Behaviors, GT** Atlanta, GA
Individuals with Autism Spectrum Disorder (ASD) frequently engage in stereotypical behavior. In some individuals this behavior can occur with very high frequency and can be very disruptive and at times self-injurious. Along with 4 other students I developed *iExpress*, a prototype system that contextualizes stereotypical behavior by automatically mapping occurrences of stereotypes to heart-rate data and audio-visual information obtained from the environment. To assess the feasibility, utility, and usability of *iExpress*, we conducted a formative study with parents, caregivers, and children with ASD whose findings will guide the development of the system. *in progress*
- Dress for Success - Automated Uniform Recycling System, GT** Atlanta, GA
Along with 3 other students I developed a prototype of a web-supported uniform vending machine, with the goal of promoting and facilitating the recycling of school uniforms at a local elementary school. Completed IRB Human Subjects Training and conducted real user evaluation of the prototype. Fall 2008
- MiChef-On-demand cooking experience, Penn** Philadelphia, PA
This project involved creating an on-demand cooking experience paced to the performance of cooking and supportive of all relevant steps, from ingredients to techniques to timing. This system also provides support for interactively learning how to cook and eat right. Spring and Fall 2007

Wearable Computing Research, Penn Philadelphia, PA
Investigated the current state of wearable computing, focusing on human dynamics, and how to create efficient and highly personalized wearable computers that allow users maximum control in a non-invasive manner. Spring 2007

Noise Cancellation in 1-D Data, CMU Pittsburgh, PA
Along with 4 other students I designed and built, in hardware, an on-chip filter that will later be used in robot aided microsurgery. Named Exceptional Project by Advanced Micro Devices (AMD). Spring 2005

EMPLOYMENT:

University of Pennsylvania – Computer and Information Science Dept. Philadelphia, PA
Teaching Assistant,
Aided in the teaching and the grading of two masters level Computer Architecture courses. Fall 2007 and Spring 2008

Gulf Bank Kuwait City, Kuwait
Intern,
Aided the Human Resources Department in the implementation of an analytical framework within which existing job descriptions are updated, and new job descriptions can be generated for the purpose of determining appropriate compensation levels for employees. Gained an understanding of banking systems from an Information Technology perspective. May 2007 – July 2007

Kuwait University – College for Women (CFW) Adeliyah, Kuwait
Engineer,
Designed the academic advising portion of the college’s website. This involved creating web pages that act as a scheduling system for room reservations and web pages that allow students to manage their accounts including major declaration and eligibility, tracking progress towards graduation, and performing a variety of GPA calculations. Created and acted as editor for the college newsletter. August 2005 – August 2006
Miami, FL

Univ. of Miami- Research Experience for Undergraduates (REU)
Research Assistant,
Developed software for the data acquisition and storage of readings from stationary and mobile sensors. Also created a Windows Service and configuration file that allow for maximum user control over the various parameters involved in the acquisition of the data. Summer 2004

Wataniya Telecom Kuwait City, Kuwait
Intern,
Designed interactive training software for the Customer Care Department while working for the Interdepartmental Training Department. December 2002 – January 2003

COMPUTER SKILLS: Java, C, Flash, Flex, Actionscript 2.0, Actionscript 3.0, Adobe Air, C#, PHP, MySQL, HTML, JavaScript, JQuery, XML, Verilog, Cadence, SPICE, Matlab, Visual Studio, Dreamweaver, Illustrator, Photoshop, Eclipse, Maya, MEL

LANGUAGES: Fluent in English, Spanish, and Arabic

COMMUNITY SERVICE: Java, Algebra, and Spanish Tutor
Kuwait Little League (Girls’ Softball Coach, Score Keeper)
Emory Choices Program- Volunteer

ACTIVITIES: Department of Modern Languages- Language Assistant(CMU)
Arab Student Organization- President(CMU)
Carnegie Mellon Action Project- Tutor(CMU)
Institute of Electrical and Electronics Engineers (IEEE)
Society of Women Engineers(SWE)
Society of Hispanic Professional Engineers (SHPE)
CISTers- Women in Computer and Information Science(Penn)
W@CC-Women in the College of Computing(GT)
CRA-W Grad Cohort for Women
Atlanta Autism Consortium

HONORS:

Kuwait University Graduate Studies Scholarship
Carnegie Mellon Scholarship (Full Tuition)
Merit Scholarship- Kuwait Ministry of Higher Education
Xerox Corporate Scholarship
Carnegie Mellon University Honors
Kuwait Ministry of Higher Education Outstanding Graduate
National Society of Collegiate Scholars
Lino Lopez Award for Academic Excellence
Lambda Sigma (Honor Society)(Treasurer)
Phi Sigma Iota (Honor Society)

PUBLICATIONS:

- Fatima A. Boujarwah, Nazneen, Hwajung Hong, Gregory D. Abowd, Rosa I. Arriaga. Towards a Framework to Situate Assistive Technology Design in the Context of Culture. *To be presented at the 13th International ACM SIGACCESS Conference on Computers and Accessibility*, 24-26 October 2011, Dundee, Scotland.
- Fatima A. Boujarwah, Jennifer G. Kim, Gregory D. Abowd, Rosa I. Arriaga. Developing Scripts to Teach Social Skills: Can the Crowd Assist the Author? *To be presented at the Human Computation Workshop at AAAI 2011*, 8-11 Aug 2011, San Francisco, CA.
- Fatima A. Boujarwah, Nazneen, Hwajung Hong, Gregory D. Abowd, Rosa I. Arriaga. Cross-Cultural Comparisons of Social Expectations of Individuals with Autism. *Presented at the International Meeting for Autism Research*, 12-14 May 2011, San Diego, CA.
- Fatima A. Boujarwah, Jennifer G. Kim, Mark O. Riedl, Rosa I. Arriaga, Gregory D. Abowd. Building a Knowledge Base to Support the Authoring of Social Skills Instructional Modules. *Presented at the International Meeting for Autism Research*, 12-14 May 2011, San Diego, CA.
- Fatima A. Boujarwah, Nazneen, Hwajung Hong, Gregory D. Abowd, Rosa I. Arriaga. Cross-Cultural Comparisons of Social Expectations of Individuals with Autism and Other Intellectual Disabilities. *Presented at the 40th Annual Meeting of the Society for Cross-Cultural Research*. 16-19 February 2011, Charleston, SC.
- Fatima A. Boujarwah, Mark O. Riedl, Gregory D. Abowd, Rosa I. Arriaga. REACT: Intelligent Authoring of Social Skills Instructional Modules for Adolescents with High-Functioning Autism. *In the Spring 2011 issue of the SIGACCESS Newsletter*.
- Nazneen, Fatima A. Boujarwah, Shone Sadler, Amha Mogus, Gregory D. Abowd, Rosa I. Arriaga. Understanding the Challenges and Opportunities for Richer Descriptions of Stereotypical Behaviors of Children with ASD: A Concept Exploration and Validation. *To appear in the Proceedings of the 12th International ACM SIGACCESS Conference on Computers and Accessibility*. 25-27 October 2010, Orlando, FL USA.
- Fatima A. Boujarwah, Hwajung Hong, Jackie Isbell, Rosa I. Arriaga, Gregory D. Abowd. Training Social Problem Solving Skills in Adolescents with High-Functioning Autism. *Presented at the International Meeting for Autism Research*. 20-22 May 2010, Philadelphia, PA.
- Fatima A. Boujarwah, Hwajung Hong, Jackie Isbell, Rosa I. Arriaga, Gregory D. Abowd. Training Social Problem Solving Skills in Adolescents with High-Functioning Autism. *Proceedings of the 4th International Conference on Pervasive Computing Technologies for Healthcare*. 22-25 March 2010, Munich, Germany.
- Nazneen, Fatima A. Boujarwah, Amha Mogus, Shone Sadler, Mohammed Habibulla, Gregory D. Abowd, Rosa I. Arriaga. Understanding the Context of Stereotypical Behaviors. *Presented at the International Meeting for Autism Research*. 20-22 May 2010, Philadelphia, PA.
- Jackie Isbell, Fatima A. Boujarwah, and Hwajung Hong. Computer-Assisted Instruction and Social Problem Solving in Adolescents with High-Functioning Autism Spectrum Disorders. *Presented at the 12th Annual Conference on Autism, Intellectual Disabilities, and Other Developmental Disabilities*., Maui, HI, 2010.
- Mark O. Riedl, Rosa Arriaga, Fatima A. Boujarwah, Hwajung Hong, Jackie Isbell, and L. Juane Heflin. Graphical social scenarios: Toward intervention and authoring for adolescents with high functioning autism. *Proceedings of the AAAI Fall Symposium on Virtual Healthcare Interaction*, Arlington, VA, 2009.
- Mark O. Riedl, Rosa Arriaga, Fatima A. Boujarwah, Hwajung Hong, Jackie Isbell, and L. Juane Heflin. Toward Assisted Authoring of Social Skill Scenarios for Young Adults with High Functioning Autism. *Proceedings of the IJCAI 2009 Workshop on Assisted Cognition*, Pasadena, California, 2009. **Distinguished Contribution Award.**
- Fatima A. Boujarwah, Amha Mogus, Jennifer Stoll, and Kanan Garg. Dress for Success: Automating the Recycling of School Uniforms. *Proceedings of the 27th Annual Conference Extended Abstracts on Human Factors in Computing Systems*, 4-9 April 2009, Boston, MA.