

Carolyn Hartzell

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SUMMARY

- Human factors psychology researcher with 3 years of training obtained from coursework and an internship in the medical devices industry in human factors and usability theory and methods, including task analysis, use error analysis, formative and summative usability testing, rapid prototyping, cognitive-behavioral modeling, etc. Additional 3 years of professional experience as systems engineer.

EDUCATION

- Georgia Institute of Technology**, Atlanta, GA May 2017
- M.S. in Engineering Psychology (Human Factors Psychology) GPA 4.00
 - Presidential Fellowship
 - Relevant Coursework: Engineering Psychology (theory and methods), Human-computer Interaction, Sensation and Perception, Assistive Technology, Mathematical Models of Behavior, Statistics
- Princeton University**, Princeton, NJ May 2011
- B.S.E. in Electrical Engineering, with High Honors GPA 3.72
 - Tau Beta Pi - Engineering Honors Society, Member

RELEVANT EXPERIENCE

- Georgia Institute of Technology**, Atlanta, GA Aug. 2014 – present
- Graduate Research Assistant in Engineering Psychology's Decision Processes Lab*
- Developed experiment stimuli for
 - Assisted design and development of online experiments for using Qualtrics Survey Software and Javascript
 - Collected and analyzed data using SPSS, SAS, and JMP
- Projects*
- Master's Thesis: Expectations Influence Visual Search
 - Developed and evaluated cognitive model of hypothesis-guided eye-movement behavior in visual search using MATLAB
 - Programmed and conducted eye-tracked visual search experiments using ExperimentBuilder and Eyelink1000+
 - HCI Interface Design and Evaluation Project for United Way Achievement Club
 - Collaborated to develop mobile application prototype, utilizing ethnographic assessment and requirements analysis and several rapid prototyping methods
 - Performed usability assessment and evaluation of prototype wireframes
 - CDC Vaccination Schedule Design Improvements Project
 - Worked with HFES Student Chapter to assess current CDC Vaccination Schedule for usability
 - Provided evidence-based design change recommendations to improve information accessibility
- Beckman Coulter**, Chaska, MN May 2017 – Aug. 2017
- Human Factors Engineering Intern*
- Led completion of Task Analysis and Use Error Analysis for a diagnostic blood-testing medical device by working with international, multi-disciplinary team
 - Wrote evaluation protocol and test plan for summative usability evaluation for the same instrument and used web conferencing tools to conduct remote dry-run of the protocol
 - Independently led and helped facilitate formative usability evaluation sessions with external customers for development prototype of immunoassay diagnostic instrument

Electric Boat Corporation, Groton, CT

July 2011 – July 2014

Systems Engineer

- Developed and presented to government counterparts an evaluation plan for three-year project to verify human systems interface of new ship control station
- Worked with submarine operators and official documentation to design realistic scenarios for use on moving simulator in order to test operator workload, software functionality, and interfaces for new, unintuitive control system for submarine motion
- Reviewed systems screen designs for human factors and system requirements compliance and provided recommendations to improve usability

SOFTWARE EXPERIENCE

- Data Analysis software: SPSS, SAS, JMP
- Experiment development tools: ExperimentBuilder eye-tracking software, PsychoPy, Qualtrics
- Programming languages and tools: MATLAB, Mathematica, Python, Java, C, Simulink
- Productivity tools: Microsoft Office, Adobe Acrobat

LEADERSHIP AND VOLUNTEER EXPERIENCE

Psychology Graduate Student Council

Sept. 2016 – present

Engineering Psychology Representative

- Founding member of Psychology Council of Graduate Students
- Represented engineering psychology interests to improve department communication and graduate student experience

Engineering Psychology Advisory Council

Sept. 2015 – present

Decision Processes Laboratory Representative

- Represented Decision Processes Lab students to ensure students' concerns and ideas are heard

Human Factors and Ergonomics Society, GT Student Chapter

Treasurer

Apr. 2015 – Apr. 2016

- Maintained accurate records of chapter finances and collected dues from members
- Collaborated to create budgets for student chapter and represented group at budget hearings

Webmaster

Apr. 2017 – present

- Updated and developed new content for chapter website

Atlanta Humane Society

Nov. 2016 – present

Dog Walker

CERTIFICATIONS AND INTERESTS

- Open Water SCUBA license
- American Sailing Association, Basic Small Boat Sailing (Light Wind) Certification
- Other interests: hiking, backpacking, stained glass design