

## SUMMARY

- User Experience Researcher with quantitative data analysis and programming skills
- Over seven years of experience working on interdisciplinary teams toward large scale research and applied projects
- Background in smart homes, internet of things, pervasive computing, and wearable technology

## SKILLS

- Advanced training in statistical software SPSS, MPlus, Stata
- Knowledge of C, C++, Objective-C, Swift, Javascript, R, Java, Git, Python
- Intermediate knowledge of SQL, Balsamiq, and Crystal Dashboard
- Creation, analysis, and application of psychometric tests and measures
- Application of machine learning and reinforcement learning algorithms

## EMPLOYMENT EXPERIENCE

### **Post Doc - NSF Solar Decathlon Smart Project for Washington State University, 2015-2017**

- Managed, designed, implemented, and tested the WSU Solar Decathlon Smart Home Project
- Leveraged design principles and research to recommend user experience improvements
- Built energy efficient smart technology with an interdisciplinary team
- Experimental design and statistical analysis for human robot interaction projects. Projects researched: interactions with basic robotics and reinforcement learning agents
- Soldered and programmed small electronics for smart home use
- Front-end programming and design with Swift 3 for iPhone and iPad
- Back-end programming and architecture with Python, NODE.js, and Linux

### **User Experience Research Intern - Samsung Research America, Summer 2015**

- Built prototypes with an interdisciplinary design team using JavaScript, C++, and small electronics
- Experimental design and statistical analysis for individual and team projects
- Collaborated with multiple teams and backgrounds

### **IGERT Research Fellow – CASAS Assistive Smart Home at Washington State University, 2010-2014**

- Interviewed caregiver groups to better understand key stakeholders
- Created custom tailored user interfaces and data visualizations for professional and non-professional caregivers
- Prototyped wearable and smart home devices for user testing, including hardware and interface components
- Leveraged design principles and research to recommend user experience improvements for accessibility and older adults
- Built and tested assistive smart technology with an interdisciplinary team

### **Executive Director - InfoSec Unlocked Non-Profit, 2014-Present**

- Managing 20+ volunteers for large events and educational experiences
- Creating events to assist a large community from zero budget
- Built a responsive website using Bootstrap

## A. Leah Zulas

### **Usability Researcher** - *Schweitzer Engineering Laboratory*, 2013-2014

- Built information architecture to suit high level tasks for enterprise software
- Constructed personas and stakeholder maps
- Advocated the application of usability research for existing and future projects

### **User Testing and Interface Design Contractor** - *SimpleC, LLC*, Summer 2012

- Interviewed caregiver groups to better understand key stakeholders
- Data analysis and query construction with SQL database
- Created custom tailored user interfaces and data visualizations for care management groups

## **EDUCATION**

2014-2017	Masters in Computer Science, Washington State University
2009-2014	PhD in Experimental Psychology, Washington State University
2007-2009	Masters in Experimental Psychology, Western Illinois University
2005-2007	Bachelor of Science in Psychology, Western Illinois University

## **MEMBERSHIPS**

Society of Women Engineers, 2014-Present  
Human Factors and Ergonomics Society Member, 2010-Present  
Association for Computing Machinery SIG-CHI Member, 2010-Present  
Graduate and Professional Student Association, 2010-2015

## **SELECT PUBLICATIONS & PRESENTATIONS**

- Zulas, A.L. (2017). *Modifying smart home to smart phone notifications using reinforcement learning algorithms* (Masters thesis, Washington State University).
- Zulas, A.L., Franz, K.I., Griechen, D., & Taylor, M.E. (February, 2017). Solar decathlon competition: Towards a solar-powered smart home. Oral presentation by Zulas, A.L. at Association for the Advancement of Artificial Intelligence 2017, San Francisco, CA
- Zulas, A.L., Crandall, A.S. & Schmitter-Edgecombe, M. (May, 2016). Caregiver needs from elder care assistive smart homes: Spouses of elder adults assessment. Oral presentation by Zulas, A.L. at Association for Computing Machinery CHI2016, San Jose, CA
- Zulas, A.L. (2014). *Graphically Visualizing Quantitative Smart Home Data* (Doctoral dissertation, Washington State University).
- Zulas, A.L. & Crandall, A.S. (2014). Needs of caregivers in the use of smart home technology. A Chapter in *Handbook of Smart Homes, Health Care and Wellbeing*, edited by van Hoof, J., Demiris, G., & Wouters, E.