

Majeed Kazemitabaar

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EDUCATION

- University of Maryland
Area: Human-Computer Interaction, Learning Technologies; **Advisor: Professor Jon Froehlich**
MS Thesis: MakerWear: A Tangible Construction Kit for Young Children to Create Interactive Wearables
- Aug 2014 – Aug 2017
M.Sc. in Computer Science
- Sharif University of Technology
Area: Human-Computer Interaction, Robotics, Hardware Design; **Advisor: Professor Hamid R. Rablee**
BS Thesis: A Markerless Augmented Reality System using Transparent Displays for Character-Based Games
- Sep 2011 - Jun 2014
B.Sc. in Computer Engineering

RESEARCH EXPERIENCES

- Microsoft Research, Redmond
Research Intern
May 2017 – Aug 2017
- Extended [MS MakeCode](#) with a programming by demonstration pipeline that allows children to incorporate machine-learning algorithms into their programs as an alternative method to writing code.
- University of California, Berkeley
Visiting Student Researcher
Jan 2017 - April 2017
- Collaborated on building and evaluating a new embedded systems development environment with improved debugging capabilities by illuminating the boundary between embedded code and circuits
- University of Maryland
Makeability Lab
Human-Computer Interaction Lab
Graduate Research Assistant
Aug 2014 – Aug 2017
- Lead graduate researcher on MakerWear: designing and investigating a wearable electronic construction kit to support young children in the creative design, play, and customization of e-textiles and wearables. Supervised by Prof. Jon Froehlich.
 - Member of the Kidsteam as a co-researcher in an intergenerational design team brainstorming, designing, and building technologies for children with children. Supervised by Prof. Allison Druin.
- Sharif University of Technology
Digital Media Lab
Undergraduate Researcher
May 2013 - July 2014
- Prototyped a new camera-less augmented reality system using transparent OLED displays.
 - Designed a character-based gaming platform to promote physical and social activities in children.

PUBLICATIONS

- UIST'17** Proceedings McGrath, W., Warner, J., Drew, D., Kazemitabaar, M., Karchemsky, M., Mellis, D., and Hartmann, B. (2017) "Bifrost: Visualizing and Checking Behavior of Embedded Systems across Hardware and Software" In Proceedings of 30th Annual ACM Symposium on User Interface Software and Technology
- ICER'17** Workshop Kazemitabaar, M., and DeLine, R. (2017) "GestureBlocks: A Gesture Recognition Toolkit for Children" Presented at the 2017 Conference on International Computing Education Research: Workshop on Research on Learning about Machine Learning
- CHI'17** Proceedings Kazemitabaar, M., McPeak, J., Jiao, A., He, L., Outing, T., and Froehlich, J. (2017) "MakerWear: A Tangible, Approach to Wearable Creation for Children" In Proceedings of the 2017 Conference on Human Factors in Computing Systems. **Best Paper Winner** (top 1%)
- CHI'16** Extended Abstracts Kazemitabaar, M., He, L., Wang, K., Aloimonous, C., Cheng T. and Froehlich, J., (2016) "ReWear: Early Explorations of a Modular Wearable Construction *Kit for Young Children*" In Proceedings of the 2016 Conference Extended Abstracts on Human Factors in Computing Systems. **Best Late-Breaking Work Paper** (top 1%)
- IDC'15** Demo Kazemitabaar, M., Norooz, L., Guha, ML., and Froehlich, J. (2015) "MakerShoe: Towards an E-Textile Construction Kit to Support Creativity, Playful Making, and Self-Expression" In Proceedings of the Conference on Interaction Design and Children.
- SAC'14** Proceedings Boghrati, R., Heydarnoori, A. and Kazemitabaar, M. (2014) "Activities performed by programmers while using framework examples as a guide" In Proceedings of the 2014 Symposium on Applied Computing.

AWARDS AND HONORS

- May 2017 CHI2017 Best Paper Award for MakerWear
- Sep 2016 Selected as one of the four "Inventors in our Midst" at the 2016 Silver Spring Maker Faire
- May 2016 CHI2016 Best Late-Breaking Work Award for ReWear
- May 2015 Top Maker Award at the Tangible Interactive Computing Course

PROFESSIONAL SERVICES

Reviewer	ACM Tangible and Embodied Interactions (TEI), 2018 ACM Interaction Design and Children (IDC), 2018 ACM Human Factors in Computing Systems (CHI), 2017
Student Volunteer	ACM Human Factors in Computing Systems (CHI), 2016

SELECTED TALKS

Design Field Notes Mar 2017	Kazemitabaar, M., (2017) <i>"MakerWear: A Tangible Approach to Interactive Wearable Creation For Children"</i> Jacobs Institute of Design, Berkeley, CA, March 7th, 2017
Tehnica: Tech + Design Nov 2016	Kazemitabaar, M., Behnezhad, S., Saha, M., He, L., (2016) <i>"Interaction Design for a Purpose"</i> 2nd All-Women Hackathon, College Park, MD, Nov 3rd, 2016
Maker Faire Silver Spring Sep 2016	Kazemitabaar, M., (2016) <i>"MakerWear: A Tangible, Modular Approach for Children to Create Interactive Wearables"</i> 4th Silver Spring Maker Faire, Silver Spring, MD, Sep 25th, 2016
HCIL Symposium May 2016	Froehlich, J. and Kazemitabaar, M., (2016) <i>"MakerWear: Early Explorations of Wearable Construction Kits for Children"</i> 33rd Annual HCIL Symposium, College Park, MD, May 26th, 2016
HCIL Symposium May 2015	Kazemitabaar, M. (2015) <i>"MakerShoe: Towards an E-Textile Construction Kit to Support Creativity, Playful Making, and Self-Expression"</i> 32nd Annual HCIL Symposium, College Park, MD, May 28th, 2015

MENTORSHIP

Undergraduate Advisees	Summer 2016 <ul style="list-style-type: none">• Jason McPeak, Computer Engineering, University of Maryland (Class of 2017)• Alex Jiao, Electrical and Computer Engineering, University of Maryland (Class of 2019) Summer 2015 <ul style="list-style-type: none">• Tony Cheng, Computer Science, University of Maryland (Class of 2018)• Katie Wang, Computer Science, University of Maryland (Class of 2018)
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TEACHING EXPERIENCE

Teaching Assistant Dr. Pedram Sadeghian	Spring 2016 & Spring 2015 <ul style="list-style-type: none">• Intro to Web Programming (HTML/CSS/JavaScript), 60 students (Spring'16), 70 students (Spring'15)
Inst. Larry Herman	Fall 2015 <ul style="list-style-type: none">• Intro to Computer Systems (C Programming), 67 students
Dr. Vibha Sazawal, Dr. Alireza Ajdari	Fall 2014 <ul style="list-style-type: none">• Human-Computer Interaction, 60 students (Fall 2014), 50 students (Spring 2013)
Dr. Shohreh Kasaei	Fall 2013 <ul style="list-style-type: none">• 3D Computer Vision, 15 students
Dr. Hamidreza Pourreza	Spring 2011 & Fall 2010 <ul style="list-style-type: none">• Electric Circuits, 58 students (Spring 2011), 81 students (Fall 2010)
Instructor	Summer 2011 & Fall 2010 <ul style="list-style-type: none">• Programming AVR microcontrollers, 26 students (Summer 2011), 14 students (Fall 2010)

SKILLS

Hardware Programming + CAD	Physical Computing Arduino • AVR • ARM • DSP • FPGA (VHDL & Verilog) • Eagle PCB Design
Computational Art + Design	Rhino • Grasshopper • Processing
Fabrication	3D Printing • CNC • Laser Cutting • Vinyl Cutting
Languages	Software Engineering C++ • C# • Java • Python • JavaScript (ES6) • TypeScript
Frameworks & Libraries	React • React Native • Django • D3.js • jQuery • Bootstrap • Electron • Unity3D
Tools & Databases	PostgreSQL • Elasticsearch • Redis • Celery
Graphic + Video Design	Creative Authoring Photoshop • Illustrator • Premiere Pro • After Effects

INDUSTRY WORK EXPERIENCES

Pegah Tech	Sep 2017 – Present, June 2013 - July 2014 Co-Founder, Lead Software Developer, Designer
Industrial Automation Lab Sharif University of Technology	Oct 2011 - Jan 2013 Embedded System Developer, Hardware Designer