

Majeed Kazemitabaar

Graduate Researcher, Makeability Lab
Human-Computer Interaction Lab (HCIL)
2117 Hombake Building (South Wing)
University of Maryland, College Park, MD 20742

Email: majeed@umd.edu
Phone: (202) 748-4966
Portfolio: majeed.cc

EDUCATION

Sep 2014 – Sep 2017

University of Maryland

Area:
MS Thesis:

M.Sc. in Computer Science

Human-Computer Interaction, Technologies for Children; **Advisor: Professor Jon Froehlich**

MakerWear: A Hybrid Tangible/Visual Toolkit for Young Children to Create Interactive Wearables

Sep 2011 - Aug 2014

Sharif University of Technology

Area:
BS Thesis:

B.Eng. in Computer Engineering

Human-Computer Interaction, Robotics, Hardware Design; **Advisor: Professor Hamid R. Rabiee**

A Markerless Augmented Reality System using Transparent Displays for Character-Based Games

PUBLICATIONS

Peer-Reviewed, Accepted Papers

Kazemitabaar, M., McPeak, J., Jiao, A., He, L., Outing, T., and Froehlich, J. (2017) *“MakerWear: A Tangible, Approach to Wearable Creation for Children”* To appear in Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems (CHI’17). **Best Paper Winner** (top 1%)

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 CHI Conference Extended Abstracts on Human Factors in Computing Systems (CHI’16). **Best Late-Breaking Work Paper** (top 1%)

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 14th International Conference on Interaction Design and Children (IDC’15).

Boghrati, R., Heydarnoori, A. and **Kazemitabaar, M.** (2014) *“Activities performed by programmers while using framework examples as a guide”* In Proceedings of the 29th Annual ACM Symposium on Applied Computing (SAC’14).

WORK EXPERIENCE

May 2017 - Present

Research Intern
Intelligent Devices Team
Microsoft Research, Redmond

- Extending [MS MakeCode](#)’s functionalities with a new tool to allow children to incorporate machine-learning algorithms such as gesture recognition into their programs.

Feb 2017 - April 2017

Visiting Student Researcher

Berkeley Institute of Design
University of California, Berkeley

- Designed and ran user-study evaluations for a new development environment designed to illuminate the boundary between embedded code and circuits.

Sep 2014 - Present

Graduate Research Assistant

Makeability Lab
HCIL, University of Maryland

- Lead 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**.

June 2013 - July 2014

Software Developer & Designer

Pegah Company

- Lead designer and developer of *4Nama*, an augmented reality architectural representation application for handheld devices using Unity3D.
- Designed and implemented a web application for creating augmented reality enabled catalogs.

May 2013 - July 2014

Undergraduate Researcher

Digital Media Lab
Sharif University of Technology

- Designed a character-based gaming platform to promote physical and social activities in children.
- Prototyped a new camera-less augmented reality system using transparent OLED displays.

Oct 2011 - Jan 2013

Embedded System Engineer

Industrial Automation Lab
Sharif University of Technology

- Constructed a real-time data acquisition system of piezoelectric sensors on a mixed FPGA/DSP/ARM hardware platform for condition monitoring of industrial machinery.
- Implemented a condition monitoring data storage & visualization server and its underlying communication protocols using TCP/IP on an ARM microcontroller.

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*

SKILLS

Physical Computing

Programming Systems
Hardware Programming + CAD
Computational Art + Design
Fabrication

C • C++ • C# • Java • Python • MATLAB • x86 & MIPS Assembly
Arduino (C++) • Microsoft Kinect (C#) • Android (Java)
AVR • ARM • DSP • FPGA (VHDL & Verilog) • Eagle PCB Design
Rhino • Grasshopper • Processing
3D Printing • CNC • Laser Cutting • Vinyl Cutting

Creative Authoring

Graphic + Video Design
Photoshop • Illustrator • Premiere Pro • After Effects

Web Programming

Web Design
Frameworks & Libraries
HTML5 • CSS3 • JavaScript
Django • D3.js • jQuery • Bootstrap • Electron

SELECTED TALKS

Design Field Notes

Mar 2017

Kazemitabaar, M., (2017) *"MakerWear: A Tangible Approach to Interactive Wearable Creation For Children"* Jacobs Institute of Design, Berkeley, CA, March 7th, 2017

Tehnica: Tech + Design

Nov 2016

Kazemitabaar, M., Behnezhad, S., Saha, M., He, L., (2016) *"Interaction Design for a Purpose"* 2nd All-Women Hackathon, College Park, MD, Nov 3rd, 2016

Maker Faire Silver Spring

Sep 2016

Kazemitabaar, M., (2016) *"MakerWear: A Tangible, Modular Approach for Children to Create Interactive Wearables"* 4th Silver Spring Maker Faire, Silver Spring, MD, Sep 25th, 2016

HCIL Symposium

May 2016

Froehlich, J. and **Kazemitabaar, M.**, (2016) *"MakerWear: Early Explorations of Wearable Construction Kits for Children"* 33rd Annual HCIL Symposium, College Park, MD, May 26th, 2016

HCIL Symposium

May 2015

Kazemitabaar, M. (2015) *"MakerShoe: Towards an E-Textile Construction Kit to Support Creativity, Playful Making, and Self-Expression"* 32nd Annual HCIL Symposium, College Park, MD, May 28th, 2015

MEDIA COVERAGE

Oct 2016

[Maker Spotlight: Majeed Kazemitabaar](#), Make Magazine

MENTORSHIP

Summer 2016

Undergraduate Advisees

- Jason McPeak, Computer Engineering, University of Maryland (Class of 2017)
- Alex Jiao, Electrical and Computer Engineering, University of Maryland (Class of 2019)

Summer 2015

- Tony Cheng, Computer Science, University of Maryland (Class of 2018)
- Katie Wang, Computer Science, University of Maryland (Class of 2018)

TEACHING EXPERIENCE

Teaching Assistant

Dr. Pedram Sadeghian

Spring 2016 & Spring 2015

- **Intro to Web Programming (HTML/CSS/JavaScript)**, 60 students (Spring'16), 70 students (Spring'15)

Fall 2015

Inst. Larry Herman

- **Intro to Computer Systems (C Programming)**, 67 students

Fall 2013

Prof. Shohreh Kasaei

- **3D Computer Vision**, 15 students

Spring 2011 & Fall 2010

Prof. Hamidreza Pourreza

- **Electric Circuits**, 58 students (Spring 2011), 81 students (Fall 2010)

Spring 2013

Dr. Alireza Ajdari

- **Human-Computer Interaction**, 50 students

Summer 2011 & Fall 2010

Lead Instructor

- **Programming AVR microcontrollers**, 26 students (Summer 2011), 14 students (Fall 2010)