

# Hesam ALIZADEH

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## SUMMARY OF QUALIFICATIONS

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- Proficient JavaScript and Java developer, experienced in design and programming of systems in various domains. Passionate to learn and eager to adopt most recent technologies
- Proven problem solving, communication and interpersonal skills with extensive experience in collaborative analysis, presentations (oral communication skills) and writing in professional environments
- Solid knowledge of artificial intelligence/machine learning algorithms and techniques
- Proficient in a variety of user research methods including in-lab usability studies, controlled laboratory experiments, field studies, individual and group interviews, and surveys

## COMPUTER SKILLS

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LANGUAGES	JavaScript, TypeScript, Java, C#, Python, Matlab
WEB	Angular, Vue.js, Node.js, HTML5, CSS3, Ember, Karma, Express.js
OPERATING SYSTEMS	Windows, Linux, Mac OS
OTHER	MySQL, MongoDB, OpenCV, WPF, Git, Gephi, Latex

## EDUCATION

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2013 - AUG. 2016	M.Sc. <b>Human Computer Interaction</b> , University of Calgary, Calgary, Canada Advisors: Tony Tang, Ehud Sharlin <i>Thesis: Embodiments for Joint Remote Exercise</i>
2010 - 2013	M.Sc. <b>Machine Intelligence and Robotics</b> , University of Tehran, Tehran, Iran Advisors: Hadi Moradi, Majid Nili Ahmadabadi <i>Thesis: Learning from Sparse Demonstrations: An Application to Air Hockey</i>
2005 - 2010	B.Sc. <b>Software Engineering</b> , University of Tehran, Tehran, Iran

## PROFESSIONAL EXPERIENCE

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**Software Engineer** **June. 2017 - Present**  
SMART TECHNOLOGIES, CALGARY, CANADA

- My main focus is Lesson Activity Builder, an online education platform that is used by teachers to gamify their lessons.
- Technologies - Vue.js, Express framework, Node.js, jQuery, Html5/CSS, Guice, Jersey.

**Software Engineer** **Oct. 2016 - June. 2017**  
GUAVUS, MONTREAL, CANADA

- Part of the user interface team in which the front-end is developed in Angular and a REST WebService in Java using Spring MVC framework.

**UX Research Intern** **March. 2016 - Aug. 2016**  
SMART TECHNOLOGIES, CALGARY, CANADA

- Responsible for iterative design and prototyping of an interactive classroom attendance taking tool

**UX Research Assistant** **Sept. 2013 - Aug. 2016**  
UNIVERSITY OF CALGARY, CALGARY, CANADA

- Designed a remote exercise system for seniors. Gained experience with Vicon Motion Capture System used for tracking user's body, and Node.js was used for transferring the tracking data between the remote servers.
- Used several HCI methodologies including User-Centered Design, Observational Experiment, Usability Evaluation, Ethnography, and Interviewing

**Research Assistant** **Sept. 2010 - Aug. 2013**  
UNIVERSITY OF TEHRAN, TEHRAN, IRAN

- Researched and developed a learning algorithm for a simulated air hockey playing robot in Matlab and C++ enabling the robot to learn performing accurate shots by performing few sample shots
- Designed and built a real-time air hockey playing robot in collaboration with a mechanical engineer using image processing techniques for tracking the puck movement implemented in C++ and OpenCV

## RELEVANT EXPERIENCE

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### Computer Supported Collaborative Work Course Project

Fall 2013

GRADUATE COMPUTER SCIENCE COURSE, UNIVERSITY OF CALGARY

- *Haptics in Remote Collaborative Exercise Systems for Seniors*: Designed and implemented a remote arm exercise system simulating assistive pushing and pulling of the limbs using haptic feedback

### Social Network Analysis Course Project

Winter 2013

GRADUATE COMPUTER SCIENCE COURSE, UNIVERSITY OF TEHRAN

- *Opinion Formation by Competing Informed Agents*: Researched and developed opinion formation strategies used by two groups of competing informed agents to shift the society's opinion toward their desired direction

### Advanced Robotics Course Project

Fall 2011

GRADUATE COMPUTER SCIENCE COURSE, UNIVERSITY OF TEHRAN

- *Localization of A Mobile Robot*: Implemented the particle filter algorithm for a mobile robot in C++. The robot could localize itself in a real world map using its IR sensors

## TEACHING EXPERIENCE

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### Teaching Assistant

Sept. 2013 - present

UNIVERSITY OF CALGARY, CALGARY, CANADA

- *Human Computer Interaction*: Taught basics of WPF programming in Visual Studio and Expression Blend, reviewed student projects and provided feedback throughout the design process
- *Introduction to Computer Science I & II*: Taught programming concepts including Object Oriented programming in Java and Python to the students, marked course assignments and exams, and provided students with step-by-step feedback throughout the design process

### Teaching Assistant

Fall. 2008 - Winter 2012

UNIVERSITY OF TEHRAN, TEHRAN, IRAN

- *Social Network Analysis*: Designed and graded assignments, taught social network analysis concepts and tools including Gephi
- *Artificial Intelligence*: Taught artificial intelligence concepts, held problem solving classes, and supervised student projects submitted in Java
- *Introduction to Computer Science*: Taught programming concepts in C++ to the students and marked course assignments and exams

## PUBLICATIONS

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| GI 2016    | <b>Alizadeh, H.</b> , Witcraft, A., Tang, A., and Sharlin, E. "HappyFeet: Embodiments for Joint Remote Dancing." In Graphics Interface 2016.   |
| CHI 2014   | <b>Alizadeh, H.</b> , Tang, R., Sharlin, E., and Tang, A. "Haptics in remote collaborative exercise systems for seniors." In CHI'14 Extended Abstracts on Human Factors in Computing Systems.                |
| CHI 2014   | Tang, R., <b>Alizadeh, H.</b> , Tang, A., Bateman, S., and Jorge, J. A. "Physio@Home: Design explorations to support movement guidance." In CHI'14 Extended Abstracts on Human Factors in Computing Systems. |
| ICRoM 2013 | <b>Alizadeh, H.</b> , Moradi, H., Ahmadabadi, M.N. "Automatic calibration of an air hockey robot." In Robotics and Mechatronics (ICRoM) 2013.  |

## VOLUNTEER ACTIVITIES

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### VP Calgary Persian Library

2015

UNIVERSITY OF CALGARY, CALGARY, CANADA

- Organized several cultural events including charity events, book clubs, and poetry reading clubs

### Student Volunteer

May 2014

ACM CHI CONFERENCE 2014, TORONTO, CANADA

- Coordinated conference session events