# Hesam Alizadeh

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## SUMMARY OF QUALIFICATIONS

- 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

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**

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

## Professional Experience

## Software Engineer

June. 2017 - Present

SMART TECHNOLOGIES, CALGARY, CANADA

- Contributing to development of educational platforms providing K-12 teachers with engaging gamified learning activities
- 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. I was involved in design and implementation of analytics and reporting web applications
- Technologies Angular 2, Angularjs, Git, Karma, Jasmine, Protractor, Selenium, HTML5/CSS3, Spring MVC

#### **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

#### 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

## 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**

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

#### 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