



MUHAMMADREZA HEYDARIAN

MSC OF COMPUTER ENGINEERING

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SKILLS SUMMARY

- React-Native
- Java (Android)
- Python
- GIT
- SQL
- JavaScript
- NodeJs
- PHP
- Linux
- Angular
- C++
- C
- OpenCV

LANGUAGES

- English
- Kurdish
- Persian
- Arabic
- Spanish

HOBBIES

-  Reading
-  Cycling
-  Swimming
-  Mountain hiking
-  video games

MSc graduate of computer engineering from the Sharif University of Technology and BSc from the Iran University of science and technology with more than seven years of professional experience as a software developer with a wide variety of languages, frameworks, and technologies.

Research Interests include IoT, Cyber-physical Systems, Edge computing, and Machine learning.

Loving to solve challenging problems and learn new technologies.

PROFILE

Age: 27
Married: yes
Nationality: Iranian
Personality: ISTP
IQ: 128



RESEARCH INTERESTS

- IoT
- Cyber-physical Systems
- Distributed Networks
- Fog/Edge Computing
- Machine Learning

EDUCATIONAL HISTORY

Master of software engineering

Sharif University of technology | Sep 2016 - Jan 2019

- Thesis title: A real-time and energy-efficient decision making framework for computation offloading in IoT
- The thesis defended in Jan 2019 and scored "excellent" by the examiners
- Supervised by: Dr. Mohammad Amin Fazli
- GPA: 3.22 / 4
- Taken courses to include: Software architecture, Software development methodologies, Secure software development, Requirement engineering
- Scored 20/20 in Software formal definition and verification
- Scored 17.8/20 in Semantic web

Bachelor of software engineering

Iran University of Science and Technology | Sep 2012 - Sep 2016

- Final project title: Smart training and flashcard formation system (STAFFS)
- Final Project: Developing a software system to automatically create flashcards for evaluating and teaching jargon in different fields using the Leitner technique by web crawling on the Wikipedia website
- The final project was defended in Sep 2016 and scored "excellent" by the examiners
- Taken courses to include: Advanced programming, Operating systems, Compilers, Software engineering, Computer networks

HONORS AND AWARDS

Ranked 36th among 15000 candidates in national examination for postgraduate admission

Konkour Arshad for Computer Engineering | April 2016

- Being admitted to the Sharif University of Technology's Department of computer engineering
- Sharif University is the most popular institute for science and engineering in Iran

Among the best one percent in the biggest national examination for university admission

Konkour Sarasari (Iranian Nationwide examination for university undergraduate admission) | June 2012

- Ranked 2100 among 260055 candidates
- Being addmitted to the Iran University of Science and Technology

Being exempt from mandatory military service by performing high value research projects

Iranian Elite Foundation | 2020

- The first project finished under the supervision of Dr. Jafargholi, faculty of Amir Kabir University of technology
- The second project finished under the supervision of Dr. Mohsen Safavi

RESEARCH EXPERIENCE

A real-time and energy-efficient decision making framework for computation offloading in IoT

MSc Thesis | Jan 2019

- Dr. Mohammad Amin Fazli

Smart training and flashcard formation system (STAFFS)

BSc Final Project | Sep 2016

- Dr. Adel Rahmani

TEACHING EXPERIENCE

Teacher Assistant in Software engineering

Computer Engineering Department of Sharif Universoty of Technology | Fall 2017

- Presented by Dr. Moslem Habibi

Teacher Assistant in Basics of programming

Computer Engineering Department of Sharif Universoty of Technology | Spring 2018

- Presented by Dr. Taheri

Test Maker For Computer Engineering Lessons in "Modarresane Sharif" institute

Modarresane Sharif | Fall 2016 - Spring 2017

- 'Modarresane Sharif', an educational institute helping students in preparation for university entrance tests

Teaching Nand2Tetris Course

Rubic Institute | Fall 2020

- Teaching teenagers the basics of computer science in a fun and engaging way
- Using From Nand to Tetris course material by Noam Nisan and Shimon Schocken

PROFESSIONAL EXPERIENCE

Full-stack developer

RKAA Group (A private company active in smart home devices manufacturing) | Sep 2021 - present

- Developing software infrastructure to support smart home systems
- <http://rkaa.net>
- Used technologies: Micropython, NodeJS, React-Native, React, MongoDB, C/C++
- Supervisor: Dr. Shragim Shirkhanlou

Full-stack developer

Center for infrastructure sustainability and resilience research at Sharif University | Nov 2019 - Aug 2021

- Developing database system, server api, web panel and mobile application to be used by surveyors
- <http://insurer.sharif.ir>
- Used technologies: NodeJS, React-Native, Angular, SQLite, MongoDB
- Supervisor: Dr. Hamed Kashani

Front-end developer

Monta (Private company active in e-learning) | Nov 2018 - Nov 2019

- Supervisor: Arash Mahabadian
- <https://www.monta.ir>
- Working on Monta android app (e-learning for students) and Montaman (Building expenses management) react-native app
- Used technologies: Java (Android), React-Native, NodeJS

Front-end developer

TIK Team (Private startup team active in educational consultation) | July 2018 - Nov 2018

- Supervisor: Ali Shamakhi
- <https://home.tikschool.com>
- Working on admin panel for teacher and student management
- Used technologies: Angular

Full-stack developer

Intelligent information solutions at Sharif University | Feb 2017 - Mar 2018

- Supervisor: Dr. Moslem Habibi
- <https://shub.ir>
- Working on Motoshub, a social network engine
- Used technologies: Java (Android), JavaScript, PHP, Html/CSS

Android developer

Gandom Team (Private startup team) | Apr 2016 - Feb 2017

- Supervisor: Hamed Raufian
- <http://www.gandom.co>
- Working on Arabaeen, a cultural and linguistic guide android app for visitors of Iraq
- Working on Chichikoo, a social network for business owners and customers
- Used technologies: Java (Android)

EXECUTIVE EXPERIENCE

The executive director of Kurdistan team

Iranian Culture and Ethnic Festival at Sharif University | Dec 2019

- Awarded as the best team because of pavilion decoration and audience satisfaction

The executive director of 6th "Fasle Now" student event

Tehran | Oct 2017

The executive director of 5th "Fasle Now" student event

Tehran | Oct 2016

SOME OF THE PROJECTS DONE

VOIP client for android using PJSIP

The compilation, embedding and debugging of PJSIP VOIP implementation in android in order to develop an android client to be used in a VOIP telephone system. Written in Java Android and C

- Under the supervision of Dr. Mohsen Safavi

Deployment of a tr069 provisioning system

Deployment of a complete auto-provisioning system for a VOIP server, including tr069 CPE and tr069 ACS

- FreeACS is used as the server
- EasyCWMP in OpenWRT is used as the client
- Under the supervision of Dr. Mohsen Safavi

Android-based system for drone control using image processing

Controlling a DJI quadrotor using a laser beam having a special signal (similar to Talon missiles), to facilitate guiding drones for people unfamiliar with drone standard controllers

- Using OpenCV for image and signal processing
- Using DJI SDK for drone control
- Under the supervision of Dr. Jafargholi, faculty of Amir Kabir University of technology

RC CAR

A radio-controlled toy car being controlled from an android app developed using Arduino C++ API and Java Android

- All electronics are done using Arduino peripherals including servo, wifi transceiver, etc
- The wireless control mechanism uses UDP packets

SIMPYTHON

A mini engine for simulating discrete event scenarios written in python

- Inventory system simulations
- Queue system simulations
- Presenting complete simulation statistics both graphical and numerical
- An API for designing simulation systems

ENGLISH SKILL CERTIFICATES

TOEFL

Scored 117 out of 120 overall

- Reading: 30 out of 30
- Listening: 29 out of 30
- Speaking: 28 out of 30
- Writing: 30 out of 30

GRE

- Verbal: 160 out of 170
- Quantitative reasoning: 161 out of 170
- Analytical writing: 4 out of 6

REFERENCES

Dr. Mohammad Amin Fazli

MSc Thesis supervisor | Sharif University of Technology Computer Engineering Department Faculty

Dr. Adel Rahmani

BSc Supervisor | Iran University of Science and Technology Computer Engineering Department Faculty

Dr. Hamed Kashani

Project Supervisor | Sharif University of Technology Civil Engineering Department Faculty

Dr. Amir Jafargholi

Project Supervisor | Amirkabir University of Technology Physics Department Faculty