

EHSAN JAHANGIRZADEH SOURE

Senior Student | Electrical Engineering

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Education

B.Sc. in Electrical Engineering University of Tehran

2015 - present Tehran, Iran
• GPA=17.96 / 20 (3.78/4) Ranked 13th among 128

Minor in Computer Engineering University of Tehran

2018 - present Tehran, Iran
• GPA=18.45 / 20 (4/4)

Diploma in Math and Physics Dicipline Allame Helli High School

2011 - 2015 Tehran, Iran
• Affiliated with the National Organization for Development of Exceptional Talents (NODET)

Research & Work Experience

Present
Sep. 2019 | **Automatic Fault Detection and Auto Correction of Gate Level Circuits** University of Tehran

- Provide a reliable and optimal way to detect possible faults of a digital circuit and correct them by solving issues in the circuit.
- Implementing and coding based on algorithms provided in the article in C++ and Python to detect errors, find solutions and after all guarantee the final solution.

Supervisor: Dr. Bijan Alizadeh

Jul. 2019
Jan. 2017 | **Array Processing Lab** University of Tehran

- Established a real-time connection between two Zedboards.
- Software-hardware co-design for a Software Defined Radio project using a Xilinx Zynq-7000 board.
- Implemented IP cores with HLS tools to add extra features to implementation provided in analog devices for AD-FMCOMMS1.

Supervisor: Dr. Aliazam Abbasfar

Present
Jul. 2018 | **Software Developer** Hamravesh co.

- Work as a software developer working with technologies like React, Redux, D3.
- Work on [Updamus](#) (Website monitoring web app,) [DC](#) (Network viz solution for internal network of company,) and [Kubervis](#) (Visualization of Kubernetes as a solution for Devops engineers).

Research Interest

- Embedded System Design
- Verification
- Machine Learning & Artificial Intelligence
- Data Science & Data Visualization

Skills

Programming Languages: Proficient in [C/C++](#) and [Python](#). Familiar with many other languages.

Web Application Development: Comfortable with [JavaScript](#), [Node.js](#), [HTML5](#), and [CSS/SASS](#). Worked with technologies and libraries: [React](#), [Redux](#)

Data Visualization: [D3](#) [Tableau](#)

Parallel: [CUDA](#)

Hardware: [x86](#) [MIPS](#) [AVR](#)

FPGA: [XilinX Zedboard](#) [Fmcomms1](#) [HLS](#)

Other: [Android app Dev.](#) [HSPICE & PSpice](#) [SystemC](#) [SystemC-AMS](#) [L^AT_EX](#)

Honors & Awards

Ranked 13th among 128 Electrical Engineering Students class of 2015 September 2019

Long-listedth in Kantar Information is Beautiful Awards Kubervis September 2019

Ranked 6th in National Codecup September 2018

Won F.O.E. (Faculty of Engineering) Award September 2016

Languages

English
• TOEFL IBT: 103 / 120 [R: 28 L: 29 S: 23 W: 23]

Persian
Turkish
Azeri

Notable Projects

Present
Summer 2018

Updamus: Network uptime monitoring solution | [Go to Site](#)

📍 Hamravesh co.

- Lead developer of the React frontend implemented as a single-page application. [React](#) [Redux](#) [React-router](#) [JS](#) [HTML5](#) [CSS3](#)

Kubervis: Kubernetes cluster visualization tool | [Go to Site](#)

- Designed and implemented the visualization of highly-complex resource structures in a Kubernetes cluster to help DevOps team examine the cluster state in a glance. [D3](#) [React](#) [Redux](#) [React-router](#) [JS](#) [HTML5](#) [CSS3](#) [Node.js](#) [Express](#)

Dr. Sadeghi
Spring 2019

Eight queens puzzle | [Go to Git](#)

📍 Artificial Intelligence

- Implemented a search based AI to solve Eight Queens Puzzle using Breadth-first search, Iterative deepening search, and A* search. [Python](#)

Breakthrough Game | [Go to Git](#)

- Implemented Breakthrough game agent to play against other agents coded by other students, using Minimax strategy and Alpha-beta pruning. [Python](#)

Dr. Khamespanah
Spring 2019

Jobunja | [Go to Git](#)

📍 Internet Engineering

- Implemented a SPA from scratch. The backend was coded in Java and the frontend was in React. The single-page application was based on MVC architecture. We also implemented a CI/CD based on Gitlab CI and used Kubernetes for automating application deployment. [Java](#) [React](#) [Redux](#) [React-router](#) [HTML5](#) [CSS3](#) [Kubernetes](#) [CI/CD](#)

Dr. Alizadeh
Spring 2017

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📍 ESL Design Methodologies

- Designed and implemented a distortion effect using CHISEL. Tested results and verified output with codes implemented in high-level languages. [CHISEL](#)
- Implemented an image processing program with a convolutional neural network (CNN) in Catapult. [Catapult](#) [C++](#)

Dr. Khosravi
Fall 2017

Gerdabify | [Go to Git](#)

📍 Advanced Programming

- Implemented a Spotify like a web application. Designed in Object-Oriented architecture. Implemented a minimal GUI with web technologies connected to API provided from the C++ codebase. [C++](#) [HTML](#) [CSS](#)

Selected Courses

Advanced Programming Dr. Khosravi, 19.4 / 20

Logic Circuits Dr. Navabi, 19.7 / 20

OO Simulation of Electronic Systems Dr. Navabi, 19.9 / 20

Electronic System Level Design Dr. Alizadeh, 19.9 / 20

Computer Networks Dr. Shah-Mansouri, 19.1 / 20

Teaching Assistantship

Logic Circuits **Dr. Navabi** [Fall 2017](#)

ESL Design Methodologies **Dr. Alizadeh** [Fall 2018](#)

Logic Circuits Lab **Dr. Navabi** [Fall 2018](#)

Computer Architecture **Dr. Safari** [Fall 2018](#)

Computer Architecture **Dr. Safari** [Spring 2019](#)

References

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