Mahyar Karimi

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EDUCATION

University of Tehran, School of Electrical and Computer Engineering

B.Sc. in Computer Engineering, Current GPA: 3.9/4.0 (18.45/20)

Tehran, Iran 2018 - Present

Shahid Soltani 1 High School

Diploma in Matchinetics and Physics, GPA: 4.0/4.0

Karaj, Iran 2014 - 2018

- Part of National Organization for Development of Exceptional Talents

Selected Coursework

My top grades during the B.Sc. program are as follows:

- Advanced Programming: 20/20

- Formal Languages and Automata Theory: 19.5/20

- Operating Systems: 19.5/20

- Programming Languages and Compilers: 19.4/20

- Formal Methods in Software Engineering: 18.9/20

- Design and Analysis of Algorithms: 20/20

- Data Structures and Algorithms: 20/20

- Artificial Intelligence: 20/20

- Discrete Mathematics: 20/20

- Engineering Probability and Statistics: 17.9/20

- Computer Networks: 16/20 - Signals and Systems: 17/20

RESEARCH EXPERIENCE

Institute of Science and Technology Austria

Klosterneuburg, Austria

Summer 2022

Research Intern

- Worked under supervision of Prof. Thomas Henzinger, on Monitoring Fairness of Decision Making Processes.
- Scholarship granted by the Austrian Agency for International Cooperation in Education and Research (OeAD-GmbH).

University of Tehran

Tehran, Iran

Research Assistant August 2021 - Present

- Collaborated with Dr. Hossein Hojjat on Causal Reasoning in Concurrent Systems.

Work Experience

Divar Tehran, Iran

January – July 2022 Software Engineer

- Working on the *Job Finding* project as a developer.

Tapsell Tehran, Iran Summer 2021 DevOps Intern

- Experimented with some infrastructure technologies.

Teaching

University of Tehran

- Teaching Assistant, Advanced Programming Course (Lecturer: Dr. Ramtin Khosravi) Fall 2020 - Spring 2022
- Teaching Assistant, Data Structures Course (Lecturer: Dr. Fathiyeh Faghih) Fall 2020 - Spring 2022

PROJECTS

Koloocheh (Python, gRPC)

June 2022

A Peer-To-Peer File Sharing System.

Jepeto Compiler (Java)

March - July 2021

A Compiler for the *Jepeto* Programming Language (Practice Language Designed at My Faculty.)

MP (Go)

March 2022

Implementation of a Message Broker in Go.

Dots and Boxes (C with Sockets)

October 2020

The Classic Game, with Sockets for Multiplayer Gaming and Client-Server Communication.

Tank Trouble (C++ with RSDL)

January 2020

Two-Player Game of Tank Battle, Implemented with RSDL Graphics Framework.

Talks and Presentations

Monitoring of Fairness Properties in Markov Chains

September 2022

Presented my summer internship work to Prof. Henzinger and Chatterjee's group.

NetKAT: Semantic Foundations for Networks

Spring 2022

Presented main ideas of the paper to a class of computer engineering students.

ACHIEVEMENTS

• Ranked top 2% nation-wide, national university entrance exam (mathematics group).

2018

• Ranked top 1% nation-wide, national university entrance exam (English-exclusive group).

2018

2016, 2017

 $\bullet\,$ Semi-Finalist in National Informatics Olympiad

2017

SKILLS LANGUAGES

- Programming Languages:
 - Skilled in Python, C++, C
 - Familiar with Go, Rust, Java
- Tools and Libraries: Numpy, Pandas, SPIN, ANTLR, NuSMV
- Technologies: Git, Docker, Kubernetes, Nginx, Redis
- English: Upper-Intermediate
 - TOEFL iBT Score:

Total, R, L, S, W: 112, 30, 30, 27, 25

• Persian: Native