Mahyar Karimi

Skype: Mahyar Karimi

Email: mahyar.karimi2079@gmail.com Linkedin: mahyar-karimi-87962a1b2

EDUCATION

University of Tehran, School of Electrical and Computer Engineering

Tehran, Iran

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

2018 - Present

Shahid Soltani 1 High School

Karaj, Iran

Diploma in Matchinetics and Physics, GPA: 4.0/4.0

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

Data Structures and Algorithms: 20/20

- Formal Languages and Automata Theory: 19.5/20

- Artificial Intelligence: 20/20

- Operating Systems: 19.5/20

- Discrete Mathematics: 20/20

- Programming Languages and Compilers: 19.4/20

- Engineering Probability and Statistics: 17.9/20

- Formal Methods in Software Engineering: 18.9/20

- Computer Networks: 16/20

- Design and Analysis of Algorithms: 20/20

- 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

Software Engineer January – July 2022

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

Tapsell Tehran, Iran

DevOps Intern Summer 2021

- Experimented with some infrastructure technologies.

Publications

1. Thomas A. Henzinger, Konstantin Kueffner, Kaushik Mallik, and Mahyar Karimi. "Monitoring Algorithmic Fairness". Submitted to 29th International Conference on Tools and Algorithms for the Construction and Analysis of Systems (TACAS), 2023.

TALKS AND PRESENTATIONS

Monitoring of Fairness Properties in Markov Chains

September 2022

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

NetKAT: Semantic Foundations for Networks

Spring 2022

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

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.

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

• Semi-Finalist in National Mathematics Olympiad

2016, 2017

• 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