Mahyar Karimi

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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 Matehmatics 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
- 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
Research Intern — Summer 2022

- 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 2022 – Present

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

Tapsell — Tehran, Iran
DevOps Intern — Summer 2021

- 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.

- **Book Classifier** (Python, Jupyter Notebook, numpy, pandas, hazm)   October 2020
  Persian Book Classifier using Naïve Bayes Classification Method.

- **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
- Semi-Finalist in National Mathematics Olympiad   2016, 2017
- Semi-Finalist in National Informatics Olympiad   2017

Skills

- **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

Languages

- **English:** Upper-Intermediate
  - Completed Adults Program at Iran Language Institute (2010-2016)
- **Persian:** Native