Mahyar Karimi

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moyarka.github.io

Education

University of Tehran, School of Electrical and Computer Engineering — Tehran, Iran
B.Sc. in Computer Engineering, Current cumulative GPA: 18.47/20 — 2018 – Present

Selected Coursework

- Formal Languages and Automata Theory: 19.5/20
- Advanced Programming: 20/20
- 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

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.

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 – July 2022, October 2022 – Present

- Worked in the *Job Finding* team as a developer.
- Working in the *Platform Trustability* team as a developer.

Tapsell — Tehran, Iran
DevOps Intern — Summer 2021

- Experimented with some infrastructure technologies.

Teaching Experience

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.

Skills

- **Programming Languages:**
  - Skilled in Python, C++, C
  - Familiar with Go, Rust, Java
- **Tools and Libraries:** Numpy, Pandas, SPIN, ANTLR, NuSMV, Alloy
- **Technologies:** Git, Docker, Kubernetes, Nginx, Redis

Languages

- **English:** Upper-Intermediate
  TOEFL iBT Score:
  (Total, R, L, S, W) = (112, 30, 30, 27, 25)

- **Persian:** Native