




# Parsa Poorsistani

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## EDUCATION

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• **Amirkabir University of Technology**, Tehran, Iran  
BSc in Computer Science

2020 — 2025

## RESEARCH INTERESTS

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- Operating Systems
- Networked Systems
- Distributed Systems
- Cloud Computing

## PUBLICATIONS

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- MA. Mirzaei, P. Poorsistani, SA. Javadi (2024). **LEAD: Latency-Efficient Application Deployment for Microservices Architecture**. *29th International Conference on Automation and Computing (ICAC '24)*

## RESEARCH EXPERIENCE

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### University of Michigan

Research Assistant Under Prof. Ang Chen

Remote

7/2024 — Present

- Contributed to SpotProxy, a censorship circumvention project featured at USENIX Security '24.
- Architected and implemented system expansion from TCP-only to full OSI Layer 4 protocol support through WireGuard integration.
- Developed a custom packet encapsulation protocol and concurrent architecture in Go, significantly improving system scalability.
- Independently proposed and implemented critical system improvements through regular collaboration with the research team.

### University of Melbourne

Research Assistant Under Prof. Adel N. Toosi

Remote

4/2024 — Present

- Developed a cloud-native serverless infrastructure for graph processing, focusing on scalability and efficiency.
- Implemented novel data locality optimizations using Redis and custom abstraction layers, significantly improving processing performance.
- Designed and evaluated a Multi-Queue Bucket approach for graph processing, demonstrating strong analytical and experimental skills.
- Currently collaborating with graduate students to refine and benchmark solutions, showing commitment to iterative research improvement.

### Amirkabir University of Technology

Research Assistant Under Prof. Seyyed Ahmad Javadi

Tehran, Iran

9/2023 — 9/2024

- Led development of LEAD, a latency-aware application scheduling system for Kubernetes, resulting in a published paper, served as the co-first author.
- Designed and implemented a production-grade multi-node Kubernetes cluster for experimental validation, demonstrating strong systems engineering capabilities.
- Developed a custom plugin integrating with Prometheus for real-time rescheduling, showcasing ability to identify and implement practical, scalable solutions.
- Mentored undergraduate students and collaborated with graduate researchers, contributing to lab culture and knowledge transfer.

## INDUSTRY EXPERIENCE

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### Cafe Bazaar

Senior Software Engineer

Tehran, Iran

10/2024 — Present

- Cafe Bazaar is Iran's leading app store platform for Android with over 5 million daily active users. I am part of the Platform team, currently working on building the video-streaming platform. I am working on a Data Abstraction Layer (DAL) solution in Rust.

**Hamkaran System**  
*Software Engineer*

Tehran, Iran  
3/2023 — 12/2023

- Hamkaran System is Iran's leading ERP company. As an integral member of the Manufacturing Team, spearheaded the development of new features, focusing on building new features and system efficiency.

**Rahnema College**  
*Software Engineer Intern*

Tehran, Iran  
7/2022 — 10/2022

- Among the elite group of 24 participants selected from over 3000 applicants based on a competitive programming contest and interviews, reflecting strong analytical and problem-solving skills.
- Completed comprehensive full-stack training covering back-end, front-end, Android development, and DevOps practices.

**Sefr Educational Solutions**  
*Back-end Developer*

Tehran, Iran  
7/2021 — 1/2022

- I was working on microservice APIs mostly based on Django-rest for an educational consulting product that acts as a task manager for students.

## TEACHING EXPERIENCE

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**Amirkabir University of Technology**  
*Teaching Assistant*

Tehran, Iran

- Data Structure and Algorithms *Fall 2023, Spring 2023*
- Design of Algorithms *Spring 2023*
- Advanced Programming *Spring 2023*
- Compiler Design *Fall 2023*
- Operating Systems *Spring 2024*
- Computer Networks *Spring 2024*

## SKILLS

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- **Programming:** golang, Rust, Python, C/C++, C#, Java, node.js, BASH
- **Frameworks, Tools:** Docker, Kubernetes, git, django, PostgreSQL, gRPC, mongodb, .NET, Unix-ish Operating Systems, SQL-Server, RabbitMQ, Redis
- **General:** Deep Systems Knowledge, Data Structures and Algorithms, Problem Solving, Software Architecture, OOP

## Selected Projects

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- SpotProxy: Cloud-hosted proxies with minimal cost and maximum circumvention utility
- Paxos/Multi-Paxos: Implemented Paxos consensus algorithm in Go
- rtcp: implemented L3/L4 network stack from scratch in rust
- rusty-maelstorm: maelstorm distributed system challenge in rust
- Rahnema-FPL: backend of our project in Rahnema college written in node.js and typescript, redis and mongodb.