Mahdi **Akbari Zarkesh**

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Summary

- I'm a **Software Engineer** with **+4 years** of experience in **large-scale production**, **distributed systems**, **microservice architecture,** and **DevOps** engineering.
- I code in **Golang**, **Python**, and **Scala**. I have a solid background in designing and maintaining databases, using **PostgreSQL**, **MongoDB**, and **Redis.**
- I consider myself a **committed** person, with good **teamwork** skills, and adept at **solution providing**.
- I have always been enthusiastic to master new technologies and discover the **best practices** in the fields that I work in.

Work Experience

Software Engineer • Cafe Bazaar • Sept. 2020 - Present

Cafe Bazar is a leading consumer internet company in Iran that runs the first and the most popular smartphone application marketplace for Persian-speaking countries. Cafe Bazar connects millions of smartphone users, advertisers, and application developers through its platform for classified ads. As of May 2022, Cafe Bazar serves more than 46 million users around the globe.

- **Increased service availability** from two-nines to four-nines as **the system owner** by implementing high-availability solutions such as **circuit-breakers**, **health check probes**, and decreasing dependency on other services.
- Introduced **test-driven development** to the team and increased the **test coverage** by 43%.
- Made Cafe Bazar's download service standalone and self-sustainable by creating multiple recovery services.
- Implemented **Feature, Library** and **Sign Checking** for user's phones, and consequently eliminated 21% of total application installation errors that were caused by incompatibility problems.
- Collaborated with an agile team of 9, and helped prioritize and assess feature requests to ensure that the features with the greatest impact were worked on first.
- Used DevOps, agile principles, and GitLab to enable **CI/CD**.
- **Mentored** junior-level developers in various programmes including the software development processes, and shared my **technical expertise** for them to be able to handle large-scale projects.

Golang, Python, PostgreSQL, Docker, Kubernetes, Prometheus, Redis, Django, gRPC, RabbitMQ, Scala, and Spark

Backend Engineer • Ferdowsi Cloud• Oct. 2019 - Sept. 2020

Ferdowsi Cloud is Ferdowsi University of Mashhad's private infrastructure-as-a-service provider. It provides the university's faculty members and researchers with easy access to virtual machines, object storage, container, and GPU computing services.

- Implemented **RESTful APIs** in Django for OpenStack.
- Developed multiple *telegraf* addons to monitorize the IaaS's **cloud-based technologies**.
- Initiated plans to reduce the overall runtime, reduce bugs, and improve the documentation processes that ultimately enhanced our team's efficiency.
- Added features for customers on an as-needed basis, for example the ability to upload custom images.

Python, OpenStack, Kubernetes, Docker, API Design

Android Developer • Pasavan • Mar. 2018 to Oct. 2019

Pasavan is a small company that turns the customers' ideas into products. It also offers consultation services.
- Wrote unit tests for mobile applications and debugged their critical issues. Issues such as crashes, memory leaks, and concurrency problems.
- Optimized various parts of a project to boost its runtime (Github).

Kotlin, Java, SQLite, Unit and UI tests, Socket, REST

Teacher • Atomic Energy High School • September 2018 to June 2022

- Prepared over 100 students for **robotics competitions**.
- Planted the seeds of interest in programming within the hearts of the students.
- Convinced the board of directors to start a programming contest for all senior students.
- Adapted the **flipped learning** method for Energy Atomic high school students.

Robotics (2-D Soccer), C++, Python, Game Design, Teaching, Mentorship

Education

- **Master's in Computer Engineering** • Sharif University of Technology • 2021 - Present
- **Bachelor of Science in Computer Engineering** • Ferdowsi University of Mashhad • 2017 - 2021
- **High School Diploma** • National Organization for Development of Exceptional Talents • 2013 - 2017

Awards

- B.Sc, University of Ferdowsi, September 2021. (GPA 3.9, Class **rank 1**)
- Ranked 5th in **RoboCup** Asia Pacific International Robotics Competition, 2D Soccer Simulation, Kish Island 2018

Skills

Languages:
- Golang
- Python
- C++
- Scala

Database and Storage:
- PostgreSQL
- Redis
- MongoDB
- Hdfs
- S3

Communication:
- REST
- Socket
- gRPC
- Message Brokers, RabbitMQ

Technologies and Tools:
- Git and Git Flow
- CI/CD
- PaaS
- IaaS
- Linux and Bash
- Docker
- Kubernetes
- Prometheus
- Apache Spark

Other:
- HTML/CSS/SCSS/JS
- Scrum
- Agile Methodology
- Design and Architecture

Personal Projects

- Stronghold Crusader game ([Github](#)). **C++** using **Model-View-Controller** pattern.

- 2-player real-time client-server Pong game with viewer ability ([Github](#)). **Python** with **OOP** concepts.

- UserProfile System ([Github](#)). **gRPC** service with **2-layer Cache** implemented in **Go**.

- [Telegram Channel](#). My notes.

- [Aparat Channel](#). The video tutorials that I have made.