

Aryan Ebrahimpour

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ABOUT ME

Hi! My name is Aryan (Hossein) Ebrahimpour. I'm a passionate site reliability and software engineer with a Master's in Computer Engineering from Iran University of Science and Technology. Since middle school, programming has been my obsession. I thrive on building robust cloud-native systems and love writing about technical topics on my blog. My interests also extend to math, history, and writing.

EDUCATION

Iran University of Science & Technology

Tehran, Iran

Master's degree, Computer Engineering

2019 — 2022

- Cumulative GPA: 4.0/4.0 (90.8%)
- At Iran University of Science & Technology, I've studied performance evaluation of computer systems, distributed systems, cloud and grid computing, data mining, dynamic complex networks, and fault tolerance of software and hardware systems. Thesis focused on scheduling algorithms in serverless platforms and FaaS environments.

University of Guilan

Rasht, Iran

Bachelor's degree, Computer Engineering

2015 — 2019

- Cumulative GPA: 4.0/4.0 (95.9%) | Ranked 2nd among all of the students.
- At University of Guilan, I began to share my knowledge about programming and web design with other students. After that, I became a member of the academic forum and participated in an ACM programming contest with the result of honorable mention. I had in-class presentations about Agile software methodologies, DevOps, Refactoring and Bad smells in code, processes and threads, SQL Server and Entity Framework related presentations, Economical and social topics like Human Development Index, Informal Sector, etc.

PUBLICATIONS

A heuristic-based package-aware function scheduling approach for creating a trade-off between cold-start time and cost in FaaS computing environments March 7 2023

Springer • The Journal of Supercomputing • [Read Paper](#)

EXTRACURRICULAR ACTIVITIES

Mentor of the IUST Cloud Computing Center

2020 — 2022

- Volunteered at the Cloud Computing Center of Iran University of Science and Technology, a research cloud lab supervised by Dr Mehrdad Ashtiani. I've developed multiple tools on top of the OpenStack's API to administrate resources and distribute them among students. After one year, I became the mentor of the lab and helped many students to learn about cloud computing glossary and get started with OpenStack.

CERTIFICATES

IELTS for UKVI (SELT) Academic - Band Score 7.5, Form Number: 25IR504939EBRH120A

November 2025

Social Network Analysis, University of California, Davis (coursera.org/verify/F44QT4ETVENC)

June 2020

SKILLS

- **Languages:** TypeScript/JavaScript, Go, C#, F#, Bash, PowerShell
- **FrontEnd:** HTML/CSS, React, NextJS, Vue, Nuxt
- **Cloud & DevOps:** Docker, Kubernetes, Caddy, Linux, Helm, ArgoCD, OpenStack, Network Concepts (HTTP, DNS, ICMP, ARP, etc)
- **Tools & Other:** SQL, Git, Technical Writing, AutoHotkey Scripting, Electronics (Arduino and ESP32)

You can read more about the details of the skills listed above at avestura.dev/resume.

WORK EXPERIENCE

Tech Lead

Nov 2024 — Present

SystemGroup

Tehran, Iran

I have established the AI Dev Empowerment Team (also known as the Engineering Productivity team) within the System Group to increase productivity across development teams. In this team, we have developed AI agents and sub-agents using LLMs and LangChain for tasks such as Code Reviewing an enormous monorepo. To achieve this, we have semantically indexed the codebase and launched multiple MCP servers, enabling our custom models to access and understand the organization's internal data. We have developed and launched our in-house MyAPI platform, enabling every engineer to create a personalized API key for accessing cloud and local AI models. Our work extended beyond software development and building custom Apache DevLake dashboards; we also launched a learning platform to deepen understanding of emerging AI technologies and delivered presentations on niche AI topics, including live-coding sessions.

Tech Lead

Mar 2024 — Nov 2024

Abramad (A member of SystemGroup)

Tehran, Iran

- Led a cross-functional team of 10+ engineers in the design and development of production-ready Cloud infrastructure features.
- From zero users to more than 2000 users and 500 businesses in only 15 months.
- Actively contributed to and oversaw the implementation of key services, including: Virtual Private Cloud (VM provisioning, IP/firewall management, snapshots, backups), Cloud Storage (Web-based S3 file browser and credential management), Cloud Domain and DNS record management, Financial Platform (PAYG pricing, cloud calculator, wallet management, invoicing), Admin Panel (internal services for cloud administrators and the support team), monitoring & observability, and technical documentation.
- Collaborated closely with engineers to architect solutions, perform code reviews, and ensure high standards across delivery.
- Promoted a collaborative engineering culture while driving strategic decisions across the stack.
- Contributed to hiring, mentoring, and creating a high-performance engineering team

DevOps Team Lead

Aug 2021 — Mar 2024

SystemGroup

Tehran, Iran

- Designed and developed a Kubernetes-based Tenant Manager, enabling lifecycle management (provisioning, updates, monitoring) for thousands of tenant environments and their associated pods/containers. Tenant manager turned into the standard solution of shipping cloud software across the company.
- Battle-tested against over 3600 pods.
- Led the DevOps team responsible for infrastructure automation and scalability of ERP systems, for both large enterprises and SMEs.
- Implemented an automated, configurable Point-in-Time Recovery (PITR) backup service for PostgreSQL, improving data resilience and recovery capabilities.
- Ensured high availability, observability, and reduced downtime and deployment issues by implementing standardized CI/CD pipelines.
- Collaborated with development teams to improve the performance of deployment pipelines and enforce best practices across cloud-native services.

Software Engineer

Aug 2019 — Aug 2021

SystemGroup

Tehran, Iran

- Contributed to the development of a custom Continuous Testing framework called [SG.CodeCoverage](#)
- Redesigned SystemGroup's Test Framework using Cypress API, reduced test execution time of 15000 E2E tests from weeks to hours
- Developed a feature-rich Azure DevOps extension for streamlined internal testing and monitoring.
- Created a fast coverage calculator with a graphical web and desktop dashboard
- Contributed to the microservice architecture design and development of the cloud-native services of the company

Software Engineer

2016 — 2018

HOMATEC

Tehran, Iran

- Developed and delivered industrial-grade applications, including:
 - CityCloud: a cloud-based file storage platform

- Bafgh Automation: an enterprise automation application for a large company in Yazd. It includes reading weightbridge data, store it locally and sync with the central server, drag and drop report designer and more...

PERSONAL PROJECTS & OPENSOURCE

My Personal Website (avestura.dev) May 2021 — Present

- I have written the backend and frontend of my personal website in TypeScript using amazing technologies such as NextJS and React. It includes my blog posts, public S3 drive, presentations, books, snippets, and more.

EyesGuard ([github.avestura.dev/EyesGuard](https://github.com/avestura-dev/EyesGuard)) May 2017 — Present

- Eyes Guard is a Windows Application for protecting your eyes. It will help you (also can force you!) to break if you are working with your PC for a long time using configurable times.

Avestura PasteBin (avestura.dev/projects/pastebin) Aug 2021 — Present

- Avestura's PasteBin is a modern paste bin with RESTful API. I created it using React, Next, Blueprint, MinIO S3 Object Storage, and Redis for rate-limiting.

Photo Firemark (github.com/avestura/PhotoFiremark) Apr 2018 — May 2022

- PhotoFiremark hides a photo in another photo using Steganography techniques
- You can read my blog post about the technique [here](#).

Many other OpenSource projects Nov 2018 — Present

- I have created and contributed to many projects over the past few years. You can have access to a handful of them using my [github source projects](#), [personal projects](#) webpage, and my [open-source listing](#)
- These lists include but are not limited to projects such as:
 - Aryogram: a telegram-looking chat app with a custom protocol on top of TCP and graph path-finding algorithms.
 - Assembly projects: projects such as dc-motor speed control using ATmega32, and a calculator written in assembly and simulated in Proteus, with keypad support using scanning.
 - Hasti Lang: a persian right-to-left programming language, written using F# and FParsec parser combinators.
 - Othello GUI: a gui othello game with a heuristic ai using min-max tree and alpha-beta pruning.

BLOG HIGHLIGHTS

More at avestura.dev/blog 2015 — Present

- Creating a Git Commit: The Hard Way — A deep dive into Git's low-level internals.
- Explaining the PostgreSQL Meme — A fun, technical exploration of PostgreSQL from top to bottom.
- Problems of C, and How Zig Addresses Them — An overview of Zig as a modern alternative to C.
- Understanding Zero-Knowledge Proofs — Simplifying a complex cryptographic concept.

TALKS

More info at avestura.dev/talks

The new generation of cloud architecture in large-scale software Tehran, Iran
SystemGroup Event at University of Tehran *Feb 27, 2025*

100 Go Mistakes and How to Avoid Them Tehran, Iran
SystemGroup Tech Event (Tech Talk) *July 29, 2024*

C# Bootcamp Tehran, Iran
A code bootcamp held in four sessions in SystemGroup *Dec 21, 2023*

Cloud Native ERP DevOps Tehran, Iran
SystemGroup Baham Event at Tehran International Exhibition Centre *Dec 24, 2023*

Automated End-to-End Testing at SystemGroup Tehran, Iran
Online SystemGroup Webinar *Sep 20, 2021*

Refactoring Code with C# Examples Rasht, Iran
A live talk about code refactoring in Software Talks YT Channel *July 10, 2019*