

# Mohamadhosein Sabaghi

+989366404896 — sabaghi.p@gmail.com — linkedin.com/in/parsa-sabaghi — sabaghip mhsabaghi.github.io

## Skills

**Languages:** Javascript, Typescript, Python, C/C++, Golang, SQL, Java  
**Frameworks & Libraries:** NestJS, AdonisJS, Django, FastAPI, Colab, Kaggle, Huggingface, Jest  
**Tools:** Docker, Redis, Kafka, Elasticsearch, RabbitMQ, Sentry, Postgres, MongoDB, Git, Kubernetes, Firebase

## Work Experience

**Software developer** Sep 2025 - present  
*Smartech*

- Developed advertising and communication backend services using Python, FastAPI

**Software Developer** Oct 2023 – Sep 2025  
*TOPS*

- Developed and maintained multiple backend services using JavaScript, TypeScript, NestJS, and AdonisJS, and contributed to Python code for specific tasks.
- Worked with both monolithic and microservices architectures, using PostgreSQL and MongoDB as primary databases
- Integrated and utilized technologies including Redis, Kafka, Sentry, AWS S3, and Docker across various projects
- Deployed applications on virtual private servers using Docker Compose for containerized environments
- Participated in software architecture design, domain modeling, and technical planning for scalable systems
- Gained extensive experience in software refactoring, improving code quality, readability, and maintainability
- Improved system performance by optimizing database queries and applying proper indexing strategies
- Implemented real-time features using WebSockets for communication-heavy applications
- Handled sensitive data by encrypting it before database storage and decrypting it securely when needed
- Wrote unit and end-to-end (E2E) tests to ensure application reliability and performance
- Documented APIs and system behavior using Swagger and Postman; used auto-generation tools for Swagger documentation
- Applied security best practices including input validation, Helmet middleware, and injection protection mechanisms
- Gained hands-on experience with DevOps tasks and CI/CD workflows using Git and containerization tools
- Worked on an IoT-related project using Python and the Tuya API to collect and process smart device data

**Software Developer** Aug 2025 – Present  
*Medic Metaverse*

- Developed a backend service using Python, Django.
- Worked with microservices architecture, using PostgreSQL as primary database.
- Integrated and utilized technologies including Redis, Kafka, Mini.io, and Docker.

**AI Intern** Jun 2023 – Sep 2023  
*Asr Gooyesh Pardaz*

- Focused on Natural Language Processing (NLP) tasks as part of the AI research team
- Developed and trained a text-to-speech (TTS) model using FastSpeech on an English dataset, achieving high-quality results
- Collected and processed a Persian TTS dataset from Kaggle and trained FastSpeech, though results were suboptimal
- Transitioned to the VITS model and successfully trained a high-quality Persian TTS system
- Built a user interface with Gradio for real-time text-to-speech demonstrations
- Developed a Telegram bot to allow users to interact with the TTS model
- Worked entirely in Python using Google Colab and Hugging Face ecosystem

## Education

**B.Sc. in Computer Engineering** Sep 2020 — June 2025  
*Amirkabir University of Technology (Tehran Polytechnic)*  
GPA: 18.75/20 (3.92/4)  
Minors: Artificial Intelligence - Networks

## Languages

**Persian:** Native Proficiency  
**English:** TOEFL iBT 102(Reading 28, Writing 27, Listening 26, Speaking 21)  
**German:** Beginner

## Research Experience

---

### B.Sc. Project

Mar 2024 – Apr 2025

- Graph Outlier Detection using Graph Diffusion models
- Conducted at the Computer Engineering Department, Amirkabir University of Technology
- Supervised by Dr. Mostafa Haghiri Chehrehgani
- Designed and implemented a generative diffusion model for graph data augmentation. The model synthesized outlier nodes to enhance graph datasets, improving the performance of graph-based outlier detection algorithms.

## Work Projects

---

### Medic Metaverse

Aug 2025

- Developed a web application for health monitoring and analysis.
- Used Django for the backend, Postgres, Redis, Kafka. And used Chat-GPT apis.

### Snapp Carfix Web Application

Aug 2025

- Developed a web application for Snapp application.
- Used NestJS for the backend, Postgres, Redis, Rabbitmq, and Elastic Search.

### Transform XML Input from SOAP Protocol to REST

Jun 2025 - July 2025

- The project required RESTful communication, but due to issues with the lack of support for older SOAP service versions, SOAP-to-REST conversion libraries in Python were not usable.
- Implemented a manual conversion process to transform the XML input to REST format, enabling the project to proceed.

### Tops Educational App

Apr 2025 – Jul 2025

- Developed an educational application initially built with a limited feature set on an older version of AdonisJS, followed by refactoring and a complete tech stack overhaul.
- Migrated to a microservices architecture, integrating several services for improved scalability and performance.
- Utilized Kafka and Redis for messaging and caching, ensuring efficient data processing and high availability.
- Implemented Sentry for error tracking and monitoring, ensuring the app's reliability.
- Integrated WebSockets for real-time multiplayer game features, allowing simultaneous play experiences.
- Used Swagger for API documentation, improving collaboration and system understanding across the team.

### Tapsi Legal Application

Nov 2024 – Feb 2025

- Developed an internal application for legal operations within Tapsi, integrating various services for managing sensitive legal data.
- Utilized NestJS for the backend, PostgreSQL for the database, and Prisma as the ORM to streamline database management.
- Implemented encryption mechanisms to securely store sensitive textual and image data before saving it in the database and AWS S3.
- Ensured compliance with legal and data protection standards by applying encryption and access control measures.

### Tapsi Garage Web Application

May 2024 – Dec 2024

- Developed a web application integrated into the Tapsi super app.
- Utilized DDD (Domain-Driven Design) architecture to ensure a clean and scalable codebase for complex business logic.
- Used NestJS for the backend, MongoDB as the database, Redis for caching, Kafka for message brokering, and AWS S3 for file storage.
- Employed Jest for writing automated unit and integration tests to ensure high-quality code.

### Iran Airshow

Apr 2024 – Jul 2024

- Developed a web application for the Iran Airshow exhibition held in Kish Island, including separate admin and exhibitor panels as well as a visitor-facing app.

### Stonade Marketplace Platform

Feb 2024 – Feb 2025

- Designed and developed a bilingual stone marketplace platform, including a mobile application and an extensive admin panel.
- Built app features for users to browse products, categories, and warehouses, make purchases, return items, receive push notifications, and interact via real-time chat.
- Developed a feature-rich admin panel supporting multi-role access, inventory management, category and product control, automatic generation of invoices, proforma invoices, product labels, and exportable PDF/Excel reports generated securely on the backend.
- Deployed the application in Turkey using Docker Compose and NGINX on a virtual private server, and later migrated it to AWS infrastructure for deployment in the UK.