

Mohamad hosein Sabaghi

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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 <i>Smartech</i>	Sep 2025 - present
– Developed advertising and communication backend services using Python, FastAPI	
Software Developer <i>TOPS</i>	Oct 2023 – Sep 2025
– 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 <i>Medic Metaverse</i>	Aug 2025 – Present
– 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 <i>Asr Gooyesh Pardaz</i>	Jun 2023 – Sep 2023
– 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 <i>Amirkabir University of Technology (Tehran Polytechnic)</i> GPA: 18.75/20 (3.92/4) Minors: Artificial Intelligence - Networks	Sep 2020 — June 2025
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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
<ul style="list-style-type: none">– Graph Outlier Detection using Graph Diffusion models– Conducted at the Computer Engineering Department, Amirkabir University of Technology– Supervised by Dr. Mostafa Haghir Chehreghani– 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
<ul style="list-style-type: none">– 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
<ul style="list-style-type: none">– 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
<ul style="list-style-type: none">– 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
<ul style="list-style-type: none">– 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
<ul style="list-style-type: none">– 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
<ul style="list-style-type: none">– 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
<ul style="list-style-type: none">– 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
<ul style="list-style-type: none">– 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.	