

Mahdi Amrollahi Biouki

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Professional Summary

Computer Engineering student and programmer with hands-on experience in full-stack development, backend systems, and server-side programming. Skilled in Python (Django, NumPy, Pandas, Scikit-learn, PyTorch/TensorFlow) with experience in machine learning and deep learning projects. Capable of building and deploying end-to-end applications, including backend APIs, data processing, and model integration.

Education

B.Sc. in Computer Engineering, 09/2022 – present
Iran University of Science and Technology [🌐](#) Tehran, Iran

Relevant Coursework:

- Data Structures (Grade: 19.05/20)
- Artificial Intelligence (Grade: 17.65/20)

Skills

Python • OpenCV • Matplotlib • Numpy • Pandas • Scikit-learn • keras •
Pytorch • Langchain / langGraph • Django • REST(DRF) • Docker • Git •
PostgreSQL • Redis • Web Scraping • RAG • LLM

Interests

- Machine Learning & Statistical Modeling with practical applications
- Deep Learning, Computer Vision, and Neural Network architectures
- Generative AI, Large Language Models (LLMs), and AI Agent systems
- Backend Development, scalable system design, and real-time data-driven applications

Professional Experience

Ai developer, Comfyuse [🌐](#) 07/2025 – Present
Tehran, Iran

- Developed and scaled backend systems and RESTful APIs using **Python, Django, Django REST Framework, and PostgreSQL.**
- Containerized and deployed applications with **Docker, establishing and maintaining CI/CD pipelines** for reliable delivery.
- **Integrated LLMs** and Generative AI technologies (**LangChain, LangGraph**) to build adaptive, intelligent features and **agent-based systems.**
- Optimized deployment infrastructure on **VPS** and RunPod for performance, stability, and cost efficiency.

Backend Developer - AI-Powered, *painfools studio*

07/2025 – 11/2025

Tehran,Iran

- **Built backend for a multiplayer game** with Django/DRF; managed game logic and player actions.
- Created AI pipelines (**ControlNet**) for **image enhancement** and product-matching engines.
- Integrated AI modules with backend services through scalable APIs.

Projects

AI-Powered Classroom Analytics System (University Course Project) [↗](#)

05/2025 – 09/2025

- Designed and implemented a comprehensive pipeline for student presence and engagement analysis using **Computer Vision**.
- Leveraged **RetinaFace/YOLO** for detection and **ByteTrack** for real-time tracking, ensuring high accuracy in dynamic environments.
- Integrated **Sentiment Classification** (FER-2013) and **Gaze Analysis** (MediaPipe) to quantify student attention levels.
- **Data Insight:** Developed a centralized dashboard to visualize complex metrics such as average class sentiment and individual attention patterns for data-driven reporting

Agent-Builder DSL (Domain-Specific Language) [↗](#)

11/2025 – 01/2026

- Designed and implemented a custom **Domain-Specific Language (DSL)** to automate the orchestration of AI agents powered by **Google GenAI (Gemini)**.
- **Core Engineering:** Developed a dedicated interpreter to map high-level syntax into executable workflows, integrating **Google GenAI's Function Calling** and Tool-use capabilities for autonomous decision-making.
- **System Architecture:** Built a modular framework for multi-agent collaboration, handling state persistence and context management without relying on third-party orchestration libraries.
- **Impact:** Significantly simplified the deployment of Gemini-based agents, enabling the creation of complex, tool-equipped AI systems with minimal configuration.

Bank Customer Segmentation – AI Course Project

01/2025 – 01/2025

- Conducted extensive **Exploratory Data Analysis (EDA)** and preprocessing, including label encoding and normalization of financial datasets.+1
- Developed and optimized multiple classification models (KNN, Decision Tree, Random Forest, AdaBoost) to assess credit risk.
- **Evaluation & Tuning:** Performed rigorous hyperparameter tuning via **GridSearch** and evaluated performance using precision-recall metrics and decision tree visualizations.
- Implemented core algorithms like KNN from scratch to demonstrate a deep understanding of **statistical distance calculations**.

BatBooks – Social Reading and Writing Platform [↗](#)

03/2025 – 06/2025

- Engineered a full-featured social platform with real-time communication using **Django Channels** and **PostgreSQL**.
- **System Responsibility:** Followed a disciplined development approach by containerizing the environment with **Docker** and establishing a **CI/CD pipeline** for reliable VPS deployment.