

Mohammad Hosein Shahsavari

Software Engineer · Backend & Full-Stack (Python, Flask, React)

Kermanshah, Iran · Remote · shahsavari.mohammadhosin@gmail.com · [LinkedIn](#) · [GitHub](#) · [Google Scholar](#) · resume.viracoi.net

Summary

Software engineer with 7 years of experience building and maintaining production software: six years of backend systems and MySQL databases, and since 2025 end-to-end products for paying, international clients. I work across Python/Flask backends, REST APIs, Docker deployments and React front ends, and I add AI (RAG, LLM agents) where it solves a real problem. I work independently in remote, distributed settings and communicate in English.

Experience

AI Engineer · Full-Stack · Viraco AI · Kermanshah, Iran · Aug 2025 – Present

- Built and deployed full-stack products for paying clients, from backend and database to deployment.
- **Royan Darou:** a veterinary/pharmaceutical assistant that answers product, dosage and alternative-medication questions for veterinarians.
- **Kermanshah University of Technology:** a QA assistant for educational questions, built to prevent incorrect answers.
- **QR-code product manual assistant:** customers scan a product and query its manual in natural language.
- Worked with multi-tenant architecture, REST and MCP integrations, vector databases, reranking and retrieval evaluation.

Backend Developer · Ferosha · Kermanshah, Iran · Jul 2019 – Aug 2025

- Built and maintained backend services and MySQL databases over six years.

Skills

- **Backend & systems:** Python, SQL (MySQL), Flask, REST APIs, Docker, multi-tenant systems
- **Frontend & tools:** React, Git/GitHub, Claude Code
- **LLM & AI engineering:** RAG, CAG, LangChain, vector databases, chunking strategies, reranking, Model Context Protocol (MCP), prompt engineering, NLP, evaluation of LLM systems
- **Machine learning & vision:** TensorFlow, OpenCV, computer vision, feature extraction, neural networks (MLP), signal processing
- **Languages:** English (professional working proficiency), Persian (native)

Selected projects

- **nobatyar:** a clinic management system with a Flask backend and React frontend, covering scheduling and patient management.
- **AI-Native Website Agent Layer** (open source): turns any website into a trustworthy, actionable source for AI agents, with tiered permissions and API keys over REST and MCP, plus content-update detection.
- **protocol-docs-rag** (Python): an evaluated RAG assistant for protocol documentation. Answers cite their sources, and the system abstains when it cannot verify an answer. Measured hallucination rate: 0.8% on 200 questions from the Uniswap docs.

- **dao-treasury-analyst** (Python, open source): a verifiable AI analyst for DAO treasuries. Every reported figure traces back to its on-chain transactions, and the system flags figures it cannot verify.
- **cag-drug-explorer**: compares RAG and CAG retrieval architectures on token budget, cache hit rate and latency, using live openFDA drug-label data.
- **my-coding-agent**: a coding agent for rapidly building MVPs.

Education

- **M.Sc. Electrical Engineering (Electronics)** · Kermanshah University of Technology · 2020 – 2023 · GPA 17.87 / 20
- **B.Sc. Electrical Engineering (Control)** · Kermanshah University of Technology · 2016 – 2020

Publications & courses

Six peer-reviewed papers (2023 – 2025) applying neural networks and image tomography to capacitance-sensor measurement of void fraction in two-phase flow. Full list on [Google Scholar](#).

Kaggle: Pandas, Feature Engineering, Data Cleaning (2024) · Artificial Intelligence and Computer Vision, Robotics and Mechatronics Union of Iran (2019) · Project: flying-object detection in the sky with R-CNN (2024)