

Fatemeh Abidizadegan

Junior AI Backend Engineer

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Professional Summary

Master's graduate in Intelligent Systems seeking an internship, graduate program, or junior AI backend role. Hands-on experience building end-to-end RAG applications with FastAPI, LLMs, and vector databases through self-directed projects. Quick learner with a strong foundation in Python backend development, eager to grow within a collaborative engineering team and contribute to production AI systems.

Skills

- **AI & Generative AI:** Retrieval-Augmented Generation (RAG), Prompt Engineering, Semantic Search, Embeddings, OpenAI API, Qdrant, LLM Evaluation, Structured Outputs
- **Backend Development:** Python, FastAPI, Pydantic, REST APIs, Async Programming (asyncio), SQLAlchemy, PostgreSQL, JWT Authentication
- **Testing:** Pytest, Unit Testing, API Testing
- **Cloud & DevOps:** Docker, AWS (EC2), Azure, Linux, Redis, Nginx, Git, GitHub Actions (CI/CD), Monitoring & Observability(Prometheus, Grafana, Loki)

Projects

PolicyGuard AI

github.com/Fatemeh127/policyguard-ai

Production-style RAG platform for document Q&A — FastAPI, Qdrant, Redis, Docker, AWS, OpenAI, Streamlit

- Built an end-to-end RAG pipeline (ingestion, chunking, embeddings, vector search, retrieval, LLM response generation) achieving ~3.7s average cold-query latency across 5-chunk retrieval, with source citations and live latency shown for every response.
- Diagnosed high response latency as a key bottleneck and implemented Redis caching for chat memory and repeated queries, reducing latency from 3.71s to under 0.01s on cache hits, a ~99% improvement.
- Added role-based access control (RBAC), request tracking, rate limiting, and monitoring to support secure, observable operation.
- Containerized the platform with Docker and deployed it on AWS EC2 behind Nginx with SSL.
- Set up a GitHub Actions CI pipeline to run automated pytest checks on every code change before deployment.

Order Food AI

github.com/Fatemeh127/order_food

AI-powered food recommendation platform — FastAPI, PostgreSQL, SQLAlchemy, Docker, JWT, Gradio

- Designed REST APIs and database models, implemented JWT authentication, and containerized the system with Docker Compose.

Work Experience

Python Developer - Parto Pars (Software Engineering)

Shiraz, Iran 2018 - 2020

- Developed Python scripts and automation tools for data processing, reducing manual work and improving efficiency.
- Collected, cleaned, and transformed structured data from multiple sources to improve data quality and consistency.
- Wrote SQL queries against relational databases to support data management and access.
- Collaborated with developers, analysts, and QA engineers throughout development and testing to support timely delivery.

Education

Master of Science, Intelligent Systems

Vaasa, Finland

Bachelor of Engineering, Computer Software Engineering

Shiraz, Iran

Languages

- **English** [Working proficiency]
- **Finnish** [Elementary]
- **Persian** [Native]