Fatemeh Ahmadzadeh

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Profile

Passionate AI & Backend Developer with 7+ years of experience building machine learning solutions and scalable systems. **Love turning ideas into impact** at early-stage startups, where I've collaborated with teams to launch products fast, adapt to challenges, and solve real-world problems. Known for my collaborative spirit, approachable communication, and knack for delivering clean, client-focused results.

Experience

FARAIT STARTUP | BACKEND DEVELOPERS | APR 2020 - DEC 2022

- Architected FHIR-compliant software systems, designing data models and workflows aligned with HL7 FHIR standards for healthcare interoperability.
- Built a customized FHIR database (e.g., PostgreSQL/MySQL), optimizing schema design and indexing strategies to support complex healthcare data structures.
- Reduced query response time by 20% through query optimization (e.g., caching Redis, query tuning with Celery), enhancing system performance for high-volume transactions.
- Integrated JWT-based authentication, securing access for 500+ user accounts with role-based permissions and token refresh mechanisms.
- Developed robust APIs using Django REST Framework (DRF), enabling CRUD operations, FHIR resource validation, and seamless third-party integrations.
- Authored comprehensive API documentation (Swagger/Postman), including endpoints, payload examples, and error codes, improving team onboarding efficiency.
- Collaborated with frontend and QA teams to implement RESTful APIs, ensuring alignment with UI/UX requirements and FHIR data exchange standards.
- Automated testing pipelines, achieving 90%+ test coverage for critical modules (authentication, data serialization, FHIR resource handling).
- Deployed applications on Nginx servers, configuring load balancing, SSL/TLS encryption, and reverse proxying for scalable, secure production environments.

SANAPLUS COMPANY| BACKEND AND ML ENGINEER | OCT 2018 - DES 2021

- Automated large-scale data collection using Selenium and custom API scrapers, simulating user interactions (clicks, form submissions) to extract structured travel industry data (pricing, reviews, availability).
- Designed and deployed a SaaS platform for travel agencies, enabling API key generation, usage analytics, and tiered access controls (free/premium tiers).
- Implemented session token authentication for 100 travel agency clients, ensuring secure API access and protecting sensitive user booking data.
- Developed a hybrid recommendation engine combining collaborative filtering (user behavior analysis) and regression-based similarity algorithms to categorize tours/hotels.
- Created RESTful APIs (Python/Django) to integrate recommendation engines with agency platforms, supporting real-time personalized travel suggestions.

- Documented API workflows and SDKs for client onboarding, including sandbox environments for testing recommendation logic and API integrations.

FARAZAN STARTUP | FULLSTACK DEVELOPER | JUN 2016 - SEP 2018
- Architected end-to-end software structure for a parenting guidance platform, designing scalable modules for user management, psychologist consultations, and psychological method repositories.
- Built a PostgreSQL database with optimized schemas for user profiles, session histories, and psychological content (articles, videos), implementing indexing and query optimization.
- Developed RESTful APIs using Django REST Framework (DRF) for seamless integration of frontend and backend systems, enabling CRUD operations for consultations, content access, and user feedback.
- Integrated Swagger for automated API documentation, streamlining third-party developer onboarding and ensuring consistent endpoint testing.
- Implemented JWT authentication with role-based access control (RBAC), creating user groups (parents, psychologists, admins) and granting admins granular permissions to manage content and user roles.
- Designed and developed a responsive frontend using Bootstrap templates, jQuery, HTML, and CSS, ensuring cross-browser compatibility and mobile-first accessibility for parents and caregivers.
- Deployed the platform on Nginx with Gunicorn, configuring load balancing, SSL/TLS encryption, and static/media file serving for high-traffic environments.

New PROJECTS

SAAS RECOMMENDER PLATFORM FOR E-COMMERCE | BACKEND DEVELOPERS AND ML ENGINEER | OCT 2024
- Developed scalable REST APIs (Python/Django) to manage product data, customized JWT authentication, and recommendations, handling 10,000+ requests/minute.
- Designed PostgreSQL schemas for transactional data (user profiles, purchase history) and ChromaDB and Colivara for vector embeddings and document storage (product descriptions, catalogs).
- Containerized services with Docker/Docker Compose for scalable deployment.
- Built a customized RAG pipeline using Colivara and OpenAI API for analyzing catalogue pdf documents
- Implemented real-time outomatic chat with WebSocket (Django Channels), and openAI models.
- Automated product recommendations using fine-tuned VLLM and collaborative filtering.
- Orchestrated asynchronous tasks (model inference, data sync) with Celery workers and Redis.

NAVIGATION PROJECT | BACKEND DEVELOPERS AND DATA ANALYSIS| APR 2025
- Built RESTful APIs (Django) for geospatial data and route management; integrated Google Maps API for real-time navigation, and Create API documentation with the Sphinx.
- Processed GTFS transit data (Python/Pandas), automating validation to ensure accuracy.
- Containerized services with Docker/Docker Compose for scalable deployment.
- Designed PostgreSQL/PostGIS database schema optimized for geospatial queries.
- Created API documentation via Sphinx, Automated testing (pytest) with 95% coverage; deployed on Nginx with security best practices.

Education

B.E IN IT ENGINEER | 2009-2013 | PAYAMNOOR, TEHRAN, IRAN

M.S IN COMPUTER SCIENCE| 2013-2016 |KHAEAZMI UINVERSITY, TEHRAN, IRAN

Skills & Abilities

- **Backend**: Python, Django, Rest Framework, Redis, Celery
- **Data mining**: NumPy, NLP, Pandas, TensorFlow, Scikit-learn**,**
- **Frontend**: Html, CSS, JavaScript, jQuery, AJAX, Bootstrap template
- **DevOps** – Docker, GitHub Actions, GitHub,
- **DATABASE MANAGMENT**: PostgreSQL, MySQL, SQLite, NoSQL
- **AI Models:** VLLM, LLM, RAG, Hugging Face models, OpenAI API, Transformer Models

CERTIFICATE

- AWS Certified Cloud Practitioner Essentials – Amazon Web Services (AWS) – 2025
  Certificate URL: https://www.coursera.org/account/accomplishments/verify/KMVOCA1TI0QJ