

GÜL AKKOCA

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SUMMARY

Computer Engineering graduate with full-stack development experience across production web and mobile applications (React, Flutter, FastAPI). Built the end-to-end frontend and the semantic recommendation retrieval layer (embeddings, hybrid search) for an AI-powered city discovery platform. Applied ML background from a data science internship; open-source contributor to pandas. Hackathon finalist (Top 8) and TEKNOFEST AI semi-finalist. Seeking entry-level Software Engineer / Full-Stack Developer roles.

EDUCATION

Bachelor's Degree in Computer Engineering Ankara Medipol University

Graduated Jul 2026

EXPERIENCE

Data Science Intern Lotus AI

Jul 2025 – Aug 2025

- Developed 5 end-to-end ML projects for the energy sector (classification, regression, clustering, association rules, anomaly detection) using CRISP-DM, and converted 100+ SQL-based ETL tasks into optimized Pandas workflows.
- Built data pipelines using KNIME and Python; wrote test scenarios validating platform functionality against real-world datasets.

Database Intern Kod-A

Jul 2024 – Aug 2024

- Improved database performance through SQL query optimization and indexing.
- Applied optimization methods to ensure data consistency and completeness.

PROJECTS

EvliyApp AI-Powered City Discovery Platform (Graduation Project, team of 5)

- Designed and built the entire frontend end-to-end — full UI/UX design system (warm Mediterranean palette, parallax hero) and every user flow (auth, chat-based query, recommendations, route planning, map view, favorites) using React + Vite within a 5-person Scrum team.
- Implemented the hybrid retrieval layer of the recommendation engine: generated 384-dim query/place embeddings with int float/multilingual-e5-small (Sentence Transformers) and ranked candidates via cosine similarity combined with category/location/tag metadata filters.
- Built multi-point retrieval for route-planning queries (per-stop candidate search with de-duplication) and a proximity-scoring step blending semantic relevance with geographic distance for final ranking.
- Added a fault-tolerant fallback: when embedding generation fails, the system automatically degrades to metadata-only filtering instead of failing the request.

Tech: React, Vite, Figma, Sentence Transformers (multilingual-e5-small), Python, cosine similarity search

DiziList TV Show & Movie Tracking Platform

- Architected and built the entire stack independently: a FastAPI/PostgreSQL/Redis backend with MinIO object storage behind an Nginx reverse proxy, plus a Flutter + Riverpod mobile client integrating TheTVDB/TMDB APIs and Firebase push notifications.
- Diagnosed an N+1 query bottleneck causing 1.8s profile-page response times; added composite database indexes and consolidated per-row ORM calls into joined queries, cutting response time to 45ms.
- Identified and closed a rate-limit bypass caused by spoofed X-Forwarded-For headers via trusted-proxy IP validation; implemented JWT access/refresh token rotation with server-side blacklisting on logout.

Tech: FastAPI, PostgreSQL, Redis, MinIO, Nginx, Flutter, Riverpod, Docker

FraudGuard AI Multi-agent fraud detection system for e-commerce

- Built a FastAPI backend with four specialized risk agents (Review, Price Anomaly, Seller Risk, Product Consistency) feeding a weighted Trust Score engine (0–100), with Google Gemini as a Trust Orchestrator for human-readable risk reports.
- Built the React + Vite frontend with score breakdown cards, evidence panels, and an agent timeline; implemented live scraping ingestion (Trendyol, Amazon) via HTTPX.

Tech: FastAPI, React, Vite, Google Gemini API, Pydantic, HTTPX

COMPETITIONS

- Hacettepe Hackathon 2025 - Finalist (Top 8): built a LightGBM-based time-series forecasting model predicting paint tank levels from real sensor/valve data.
- TEKNOFEST 2025 AI Competition - Semi-Finalist: developed a computer-vision-based system to assess and improve student focus.

TECHNICAL SKILLS

Languages: Python, Java, TypeScript, Dart

Frontend / Mobile: React, Tailwind CSS, Vite, Flutter, Riverpod,

Backend: FastAPI, Pydantic, PostgreSQL, Redis, MinIO

Data / ML: pandas, NumPy, scikit-learn, Sentence Transformers,

Tools: Git, Docker, Nginx, Figma

LANGUAGES

English (B2), Turkish (Native)