Fatma Betül ARSLAN AI Specialist

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Profile

I am an AI-focused developer with a strong mathematical background and a passion for turning complex problems into simple, data-driven solutions. I thrive in multidisciplinary teams and enjoy transforming insights into scalable systems that deliver measurable business value.
My work bridges the gap between innovative AI technologies and real-world applications, from prompt engineering to backend logic. I value collaboration, clarity in communication, and continuous learning—especially in fast-paced, impact-oriented environments.

Professional Experience

SAP ABAP & Fiori Consultant, *UISAP Software Solutions* 04/2025 – 06/2025
- Developing ABAP code and SAPUI5-based Fiori applications.
- Creating OData services and customizing UI elements.
- Improving reporting and integration in SAP S/4HANA systems.
- Technologies: ABAP, SAPUI5, Fiori, OData, S/4HANA.

Data Science Intern, *Ordulu Technology* 10/2023 – 05/2024
- Automated data processing workflows using Apache Airflow, reducing processing times by approximately 15%.
- .Improved product classification accuracy in computer vision projects.
- Collaborated with cross-functional teams to integrate machine learning solutions into company systems.

Database Administrator Intern, *DMC Information Technologies* 07/2023 – 09/2023
- Developed SQL-based solutions to improve database performance.
- Automated reporting processes using Python, increasing efficiency and reducing manual workload.
- Assisted in database management and optimization processes.

Skills

AI & LLM Development: Prompt Engineering, LangChain, OpenAI API, Gemini Flash API, RAG Architecture, Streamlit, NLP

Machine Learning: Scikit-learn, TensorFlow, PyTorch (beginner), XGBoost, SMOTE, Clustering, Recommendation Systems

Backend & Data Tools: Python (Pandas, NumPy), SQL, DuckDB, REST APIs, Apache Airflow, Docker

Visualization & Analytics: Power BI, Plotly, Matplotlib, A/B Testing

Others: Git, Jupyter

Education

Bachelor's Degree - Mathematics, *Ankara Yıldırım Beyazıt University* 09/2018 – 07/2024

Projects

AI Portfolio Chatbot ⧉ 07/2025
- Bilingual TR/EN chatbot that answers CV questions, writes cover letters and scores job fit via Gemini Flash + RAG.
- Added caching & batching to speed up responses and reduce API usage. Tech: Python, Streamlit, Google Gen AI, scikit-learn.
- **Live Demo = https://portfolioaichatbot-** ⧉

- **5dmfgnoqsgjunhmmcca2pu.streamlit.app/** ⬈

Customer Churn Prediction ⬈   02/2025
- Built a customer churn prediction model on a highly imbalanced dataset using PySpark.
- Applied SMOTE and undersampling techniques to balance the dataset and improve classification performance.

Movie Recommendation System ⬈   02/2025
- Developed a movie recommendation system handling 150M+ records using DuckDB for efficient querying and data processing.
- Implemented collaborative filtering and content-based filtering to provide personalized recommendations.
- Optimized data storage and retrieval with DuckDB, reducing query execution time significantly

Smart Home Energy Management Application ⬈   12/2024
- Energy Prediction API: Developed a scalable REST API for 24-interval energy consumption forecasting.
- Performance Optimization: Ensured high efficiency with Pytest-optimized workflows.
- Documentation & Processing: Created user-friendly documentation and streamlined data workflows using Docker.

Text-to-SQL Natural Language Interface ⬈   07/2024
- Built an LLM-powered interface that translates English questions into SQL queries using Langchain and OpenAI.
- Integrated with Streamlit to provide an interactive interface for querying structured data.
- Applied prompt engineering techniques to bridge natural language inputs with SQL execution logic.

Competitions

BTK Datathon 2024, 2nd/3rd Place (Public/Private), Kaggle Stage
- Collaborated with teammates to develop a high-performing model using Python and Scikit-learn, achieving 2nd place out of 364 teams.

Gdz Electric Datathon 2024
- Built a time series forecasting model for predicting power outages, contributing to cost-efficient maintenance strategies.
- Ranked in the top 7% of participants, showcasing strong problem-solving and analytical skills.

Languages

Turkish   **English**
Native   Upper-intermediate

Organisations

TEGV, LÖSEV, *Volunteer*

References

Furkan Alaybeg, Mentor,, *Data Engineer,,* Vodafone
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