





Fatma Betül ARSLAN Jr. AI Specialist

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Profile

I am an AI-focused developer with a strong mathematical foundation and a passion for turning complex problems into simple, automated solutions. I specialize in large language models (LLMs), prompt engineering, and building lightweight AI tools that generate measurable value. Through hands-on projects such as a LangChain-based Text-to-SQL interface and an AI-powered portfolio chatbot, I've gained solid experience in backend logic, prompt design, and LLM integration. I'm especially excited about building scalable systems using emerging AI technologies in fast-paced, growth-oriented teams.

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.

Customer Churn Prediction <ul style="list-style-type: none"> 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. 	02/2025
Movie Recommendation System <ul style="list-style-type: none"> 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 	02/2025
Smart Home Energy Management Application <ul style="list-style-type: none"> 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. 	12/2024
Text-to-SQL Natural Language Interface <ul style="list-style-type: none"> 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. 	07/2024

Competitions

BTK Datathon 2024, 2nd/3rd Place (Public/Private), Kaggle Stage <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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 Native	English Upper-intermediate
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Organisations

TEGV, LÖSEV, Volunteer

References

Furkan Alaybeg, Mentor,, Data Engineer,, Vodafone
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