

Berkay Köklü

AI/ML Engineer ■ Data Scientist ■ M.Sc. Student, EEE
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Profile

AI/ML Engineer, currently an M.Sc. student in Electrical & Electronics Engineering at Boğaziçi University, specializing in generative models, reinforcement learning, and applied machine learning. Hands-on experience building and evaluating production ML/AI pipelines end-to-end, from data ingestion and exploratory analysis to model development, retrieval-augmented generation, and evaluation frameworks that quantify and improve model behavior. Research focuses on constrained generative world models and offline reinforcement learning for sequential decision-making.

Work Experience

AI Engineer

Bizzbee

Istanbul, Turkey
Jan 2025 – Present

- Built and optimized production LLM pipelines including RAG systems, semantic search, and conversation orchestration for a multi-tenant AI customer service platform.
- Designed hybrid retrieval combining dense vector search with keyword-based retrieval to improve response relevance across multilingual document collections.
- Developed document ingestion and chunking pipelines for structured and unstructured data, enabling accurate, context-aware retrieval.
- Implemented content moderation and PII anonymization systems with configurable safety constraints for LLM outputs.
- Built evaluation pipelines and feedback loops to measure and iteratively improve model behavior in production.

Startech Intern

Intertech

Istanbul, Turkey
Feb 2024 – Jan 2025

- Managed SQL Server instances, including cluster installation and server monitoring.
- Executed downgrade/upgrade procedures and database archiving operations.

Software Support Intern

Sendeo

Istanbul, Turkey
Jun 2023 – Oct 2023

- Traced and diagnosed database issues across SQL, Kibana, and Microsoft Azure.
- Identified and resolved production problems through targeted SQL queries.
- Reported and tracked software issues through resolution.

Coding Trainer

Logiscool Göktürk

Istanbul, Turkey
Jan 2022 – Jul 2023

- Taught block-based programming and Python to students across multiple age groups.

Education

M.Sc. in Electrical & Electronics Engineering

Boğaziçi University

Istanbul, Turkey
Sep 2025 – Present

Thesis area: constrained generative world models and offline reinforcement learning.

B.Sc. in Electrical & Electronics Engineering

Boğaziçi University

Istanbul, Turkey
Sep 2020 – Jul 2025

Technical Skills

Languages	Python (Advanced), SQL (Intermediate)
Data Science	pandas, NumPy, scikit-learn, Data Analysis & Visualization
ML / DL	PyTorch, Generative AI (Diffusion Models, Transformers, LoRA), Reinforcement Learning
LLM / RAG	LangChain, Hugging Face, RAG & Vector Search, Semantic Retrieval
Backend / Infra	FastAPI, MongoDB, Docker, GitHub Actions
Spoken	Turkish (Native), English (Proficient, C1)