

SUMMARY

I am an **Artificial Intelligence and Data Engineering** final-year undergraduate at Istanbul Technical University with a passion for exploring the transformative potential of deep learning. My academic journey has equipped me with a strong foundation in AI, including machine learning, natural language processing, speech processing, big data, and data mining. Through hands-on experience with NLP and speech projects, retrieval-augmented generation pipelines, and end-to-end model development in PyTorch and TensorFlow, I have developed technical expertise in solving real-world challenges. I aim to leverage my skills in AI to drive innovation and create impactful solutions that benefit society.

EDUCATION

İstanbul, Türkiye

2021 - 2026

Istanbul Technical University

BSc in Artificial Intelligence and Data Engineering

PROJECTS

MULTILINGUAL IDIOM IDENTIFICATION (TURKISH & ITALIAN)

Built a transformer-based sequence labeling pipeline (BERT + BiLSTM + CRF) for token-level identification of idiomatic multi-word expressions in Turkish and Italian; trained on a combined multilingual corpus with two-stage fine-tuning (frozen encoder → gradual unfreezing), achieving 0.90 F1.

PREDICTIVE ANALYTICS FOR E-COMMERCE PRODUCT REPLENISHMENT

Developed a machine learning model using XGBoost and CatBoost to predict customer repurchase timing in e-commerce, leveraging advanced feature engineering and over 1 million transactional records.

DATABASE DESIGN AND IMPLEMENTATION

Designed and implemented a database system for a music streaming platform, featuring a RESTful API with Flask-RESTX, JWT-based authentication, and advanced relational modeling.

More projects and details: <https://berkekurt.com/#projects>

WORK EXPERIENCE

ARTIFICIAL INTELLIGENCE INTERN AT TURKCELL — JUL 2025

Worked on LLM-based intent classification for Turkcell's customer chatbot. Built a RAG pipeline using FAISS, BGE embeddings, and rerankers; optimized prompts with DSPy; evaluated system performance on 9k samples; and collaborated with engineering teams to improve intent taxonomy and retrieval quality.

RESEARCH INTERN AT ÖZYEĞİN UNIVERSITY — AUG - OCT 2025

Researched speech-based depression detection, implemented wav2vec-based classifiers, built a full dataset preprocessing pipeline, discovered & corrected speaker-leakage flaws in prior work, and conducted extensive literature analysis and model evaluations.

CERTIFICATIONS

Deep Learning by DeepLearning.AI on Coursera

[🔗 Verify](#)Machine Learning Specialization by Stanford University &
DeepLearning.AI on Coursera[🔗 Verify](#)