

## About Me

Creative AI Engineer with a strong foundation in physics and machine learning. Passionate about designing deep learning solutions and playing with advanced algorithms to solve problems.

## Experience

- 2020–2022**Research Assistant**, *Bogazici University*  
Developed advanced machine learning algorithms for seismic data analysis by employing transformer-based architectures and comprehensive feature engineering to enhance earthquake detection. Contributed to high-impact research (arXiv:2407.18402) and mentored a team of five junior researchers.
- 2021–2022**Teaching Assistant**, *Bogazici University*  
Led interactive QA sessions for Numerical Methods, emphasizing practical applications of NumPy, SciPy, and Matplotlib. Enhanced student learning through hands-on problem solving and clear explanations.
- Aug 2022–Jul 2023**Intern, Data Analytics & Process Mining**, *Allianz TR*  
Data Analytics & Process Mining Intern at Allianz TR. Enhanced data-driven efficiency. Automated Excel reporting (Python/SQL), integrated databases, dynamic dashboards (operational insights/visibility). Optimized business processes (Celonis), dashboards (operational visibility). Streamlined workflows, boosted business intelligence.
- Jul 2023–Sep 2023**AI Engineer Intern**, *Live The World*  
Engineered a robust content generation pipeline leveraging state-of-the-art NLP tools. Enhanced web scraping capabilities and refined Python solutions to support AI-driven applications.
- 08/2024–Present**AI Engineer**, *Diktatorial Suite*  
Architecting and deploying sophisticated audio-based machine learning models for source separation, classification, and event detection. Spearheading end-to-end AI solutions with a Django backend and real-time inference integration via JavaScript. Currently developing AI agents to further advance audio processing.

## Education

- 2018–2023**B.Sc. in Physics**, *Bogazici University*  
Graduated with a GPA of 3.04. Completed rigorous coursework in Physics, specially Quantum Physics and General Relativity and Machine Learning, while leading the Science Club.
- 2023–2024**M.Sc. in Computer Science**, *University of Padua*  
Advanced coursework in Artificial Intelligence and Deep Learning, providing a strong theoretical foundation essential for my career in applied AI engineering. This program honed my skills in deep learning architectures, algorithmic problem-solving before I pursued opportunities for practical application.
- 2025–**M.Sc. in Data Science**, *Sabanci University*  
Currently enrolled, specializing in advanced Deep Learning and Statistical Analysis to further my expertise in data-driven innovation and research. This program is strategically chosen to deepen my skills in Computer Vision and more research experience.

## Projects

- o **Earth-ML**: Enhanced time series classification using advanced modeling techniques.
- o **TÜBİTAK 2209-A**: Developed a high-precision earthquake detection model through innovative feature engineering.
- o **”Burası” Art Exhibition**: Merged seismic data with artistic representation, creating a unique fusion of art and science.
- o **Kaggle Competition**: Achieved 8th place in the Türkiye İş Bankası ML Challenge 5 by applying effective feature engineering strategies.
- o **Datathon AI**: Secured third place in a Datathon AI competition focused on computer vision challenges.
- o **NLP News Summarization**: Conducted a comprehensive evaluation of summarization models, comparing architectures like BART and T5 to assess performance and efficiency.

## Skills

- o **Programming**: Python, SQL, JavaScript, TypeScript
  - o **Version Control**: Git
  - o **Web Development**: Django, FastAPI, Celery
  - o **Machine Learning**: XGBoost, CatBoost, LightGBM
- o **Deep Learning**: PyTorch, TensorFlow
  - o **AI Techniques**: OpenAI API, LangChain, LangGraph, Transformers
  - o **Libraries**: NumPy, SciPy, Matplotlib

## Certifications

- o **Quantum Computing (Bronze)**: QTurkey
  - o **Excellence in Audio Course**: Hugging Face
- o **Process Mining**: Celonis Academy
  - o **Building RAG Agents**: NVIDIA Deep Learning Institute