

EDUCATION

MSc in Computer Engineering, Hacettepe University

Sep 2024 - Present

BSc in Artificial Intelligence Engineering, Hacettepe University

Sep 2020 - June 2024

1st in AI Engineering Department 2nd in Faculty of Engineering

GPA: 3.76/4.00

EXPERIENCE

HAVELSAN (14 months)

AI Engineer

July 2024 - Present

Candidate Engineer

March 2024 - July 2024

AI Engineering Intern

July 2023 - August 2023

- Currently, working on the **MLTrack project** for improvements. Also, gaining experience in **reinforcement learning**.
- During candidate engineering, **SKTime**, **TSAI**, and **Darts** frameworks are utilized. The **TS-Mixer** and **DLinear** models were implemented for the **MLTrack project** in the field of time series
- During the internship; **RocketRegressor**, **CNNRegressor**, and **ResNetRegressor** models are utilized on NASA's Turbofan Jet Engine dataset for **predictive maintenance** in time series, achieving **15% RMSE** and **84% accuracy**.

DATASCOPE (6 months)

Founding AI Engineer

Sep 2023 - Feb 2024

- ARIMA**, **SARIMA**, **SARIMAX**, and **Prophet** models are utilized for time-series forecasting
- Optuna** framework is used for hyperparameter optimization
- Forecasting **performance improved by an average of 60%** in the cement, electricity, insurance, technology, and tire sectors.

TUSAŞ (13 months)

AI Engineering Intern

Dec 2021 - May 2022 / Nov 2022 - May 2023

- K-Means**, **DBScan**, and **Isolation Forest** models are utilized for anomaly detection on sensor data
- Data labeling** for object detection/segmentation is done to help computer vision team
- Gained experience in **reinforcement learning** by training and fine-tuning **OpenAI GYM** agents

GITEK VISION (3 months)



AI Engineering Intern

July 2022 - Sep 2022

- An algorithm is developed for creating dataset batches from scratch for industrial screw detection
- YOLOv3** model is utilized to enable fruit detection


PROJECTS

Smart Fridge (Graduate Project)

A pipeline that contains **YOLOv8-S** and **ResNet-101** is utilized to detect fruits/vegetables and decay percentage to qualify the food waste. The project funded by **European Union** and conducted with **Food Eng. Department**.

Surfing the Bitcoin Waves




Machine Learning, **Deep Learning**, and **Traditional Time-Series Forecasting** techniques are utilized to investigate influence of various trader types such as **whales**, **bots**, and **top traders** over the Bitcoin market.

Industry Cycles App



ARIMA, **SARIMAX**, and advanced time series forecasting models are utilized to forecast year-over-year growth of different industries for one or two quarters further.

NeuroDeepAdvisor



The project utilizes **YOLOv5** - **YOLOv8** models and a custom **CNN architecture**. It aims to create a **real-time decision support system** for detecting Alzheimer's disease levels from MRI images and delivering pertinent information to doctors via a **user-friendly GUI**.

Project LEAFS

The project based on incorporating **Data Mining**, **Computer Vision**, and **Deep Learning**. The primary aim of this project is to provide lecturers with valuable insights on lecture efficiency by detecting students' attitudes with **YOLOv5** using a **user-friendly GUI**.

UNIVERSITY COURSES

- Principles of Artificial Intelligence
- Elements of Data Science
- Foundations of Machine Learning
- Introduction to Deep Learning
- Advanced Deep Learning
- Introduction to Computer Vision
- Pattern Recognition
- Fundamentals of Blockchain
- Fuzzy Logic
- Intro. to Data Mining
- Intro. to Human-Robot Interaction

TECHNICAL STACK

- Python** as programming language
- Pandas**, **Scikit-Learn**, **Matplotlib** **Seaborn**, **Numpy**, and **OpenCV** as primary libraries
- PyTorch**, **TensorFlow**, and **Keras**, **Optuna** as primary frameworks
- PyCharm**, **VS Code**, **Jupyter Lab**, **Google Colab**, **Spyder** as coding environment
- GitHub**, **Git**, **JIRA** and **BitBucket** as version control systems

CERTIFICATES

- Stanford University**
 - Machine Learning Specialization
 - Deep Learning Specialization
- Vanderbilt University**
 - Prompt Engineering Specialization
- NVIDIA**
 - Generative AI with Diffusion Models

LANGUAGES

- Turkish, Native
- English, Professional
- German, Beginner

SOCIETY

- Hacettepe AI Club
 - Corporate Affairs Manager
 - Supervisor
 - Member
- ACM Hacettepe
 - Member