

## EXPERIENCE

- HAVELSAN — AI Engineering Intern

March 2024 - Current

  - I'm currently working on a **Time-Series Forecasting Framework** by integrating state-of-the-art models such as **TSMixer**, **DLinear**.
- DATASCOPE — AI Engineer

Sep 2023 - Feb 2024 (6 month)

  - 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.
- HAVELSAN — AI Engineering Intern

June 2023 - Aug 2023 (2 month)

  - Random Forest** and **XGBoost** models are utilized for classification.
  - RocketRegressor**, **CNNRegressor**, and **ResNetRegressor** models are utilized from the **sktime** library for time-series forecasting
  - Optuna** framework is used for hyperparameter optimization
  - Gained experience in **predictive maintenance** by achieving **15% RMSE** and **84% accuracy** on NASA's Turbofan Jet Engine dataset
- TAI — AI Engineering Intern

Nov 2022 - May 2023 (7 month)

  - K-Means**, **DBScan**, and **Isolation Forest** models are utilized for anomaly detection on sensor data
  - Tasked with data labeling to help Computer Vision team
- GITEK VISION — AI Engineering Intern

July 2022 - Sep 2022 (3 month)

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

Dec 2021 - May 2022 (6 month)



  - Gained experience in Reinforcement Learning by training and fine-tuning **CartPole-v0**

## TECHNICAL STACK


- Programming Skills
- Python** stands as my primary, with knowledge in **Java**, **SQL**, and **C++**
  - Proficient in **Pandas**, **Numpy**, **Scikit-Learn**, **Seaborn**, **Matplotlib**, **OpenCV**, and **PyQT5**
  - Currently enhancing in **PyTorch**, **TensorFlow**, **Keras**, **Sktime**, **TSLib**, and **TSAI frameworks**
- Developer Kit
- PyCharm**, **VS Code**, **Spyder**, **Jupyter Notebook & Lab**, and **Google Colab** environments
  - QT Designer**, **YoloLabel**, **Cascade Trainer GUI** are used as helper tools for projects

## 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**.

## EDUCATION

- HACETTEPE UNIVERSITY

Artificial Intelligence Engineering

Bachelor of Science, BSc

Sep 2020 - Current

GPA: 3.73/4.00
- COURSEWORK

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

## CERTIFICATES

- Stanford University, Machine Learning Specialization
- Stanford University, Deep Learning Specialization
- Vanderbilt University, Prompt Engineering Specialization

## LANGUAGES

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

## CAPABILITES

- Research Proficiency
- Continuously Learning
- Multidisciplinary Working
- Critical Thinking
- Problem Solving
- Adapting to New Technologies

## SOCIETY

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