EMRE ÇOBAN

ARTIFICIAL INTELLIGENCE ENGINEER

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EDUCATION

Hacettepe University

Artificial Intelligence Engineering

2020-2024

3.59/4.00 GPA

SOCIAL

LinkedIn

Medium

Github

SKILLS & TOOLS

- Python
- C++
- Java (OOP)
- Machine Learning
- Pytorch
- TensorFlow
- Time Series Analysis
- Computer Vision
- Natural Language Processing
- Data Science & Analysis

LANGUAGES

- English
  Professional Working Proficiency
- Turkish
  Primitive Language

ABOUT ME

As an AI Engineer from Hacettepe University, I gained experience through part-time internships at SisaSoft, TAI, and HAVELSAN, alongside a part-time role at DATASCOPE AI. My skills include deep learning, data science, model development, and optimization. I'm adept at handling complex datasets to solve real-world problems. With a strong background in mathematics, statistics, and programming, I'm committed to staying updated on the latest advancements in the field.

EXPERIENCE

- ***HAVELSAN***

  Candidate AI Engineer (March 2024 - Present)

  Following a successful internship at HAVELSAN, a position as a Candidate Engineer was secured. Currently, work is being conducted in the field of time series forecasting, exploring state-of-the-art methods.

  Improved Skills: PyTorch, Time Series Analysis, Tensorflow

- ***DATASCOPE AI***

  AI Engineer & Founding Engineer(September 2023-February 2024)

  Both roles of AI Engineer and Founding Engineer were held at DataScope, playing a pivotal role in the company's early stages. Within the AI Team, successful projects were undertaken for TUBITAK and Sabancı, showcasing expertise in artificial intelligence. A notable contribution was made to a significant project involving the development of a chatbot for ÇİMSA, demonstrating the ability to implement AI solutions in practical applications. Additionally, responsibilities included engaging in time series analysis, providing valuable insights and solutions to support Sabancı Holding's objectives. The team's dedication and capabilities were further demonstrated through participation in the Sabancı ARF program. Furthermore, the commitment to excellence was acknowledged with acceptance into TUBITAK 1507, further validating the quality and impact of the project work.

  Improved Skills: PyTorch, MLOps, Time Series Analysis, Natural Language Processing

- ***HAVELSAN***

  AI Engineering Intern (July 2023-August 2023)

  Work was undertaken in the fields of Computer Vision and Time Series Analysis, enhancing skills in both areas. The Computer Vision project centered on 3D Scene Reconstruction, while the Time Series project focused on creating a pipeline for predictive maintenance in the Digital Twin department.

  Improved Skills: PyTorch, MLOps, Time Series Analysis, OpenCV

- ***TURKISH AEROSPACE INDUSTRIES (TAI)***

  AI Engineering Intern (November 2022-May 2023

  Work was undertaken as a Sky Experience Intern with the AI Team, enhancing skills in Data Science and Data Analysis. The project involved analyzing time series data and eliminating anomalies through various approaches and evaluating the results.

  Improved Skills: Anomaly Detection, Data Analysis(Seaborn, Pandas, Matplotlib, Numpy etc.)

- ***SISASOFT BİLGİ TEKNOLOJİLERİ VE İNOVASYON A.Ş.***

  AI Engineering Intern (June 2022-August 2022)

  Work was undertaken on Deep Learning, particularly in Computer Vision, with the AI Team. The project involved detecting tree species, heights, and the number of trees from satellite or UAV images. This project provided insight into the main ideas of a project pipeline and computer vision tasks.

  Improved Skills: PyTorch, TensorFlow, Deep Learning

PROJECTS

BANK MARKETING PROJECT

View Code

This Data Mining project, based on a binary classification problem, was developed utilizing a dataset from "data.world" containing banking data, including customer information such as marital status and education. Data Science techniques were employed to evaluate and inspect machine learning models, which were then compared to obtain satisfying results.

Improved Skills: Data Analysis, Data Science Pipeline

GENERATE QUESTIONS WITH CUSTOM DATA

View Code

This NLP project aimed to generate questions given a context. It was created in collaboration with a colleague. Initially, a seq2seq model using LSTM was developed, but later the T5 base model was fine-tuned for improved performance. The model operates in two steps: first, it generates possible answers through keyword extraction, and then it generates questions based on the given answers using the attention mechanism.

Improved Skills: Natural Language Processing, TensorFlow, LSTM, Transformers

INDUSTRY CYCLES APP

While contributing to the industry cycles application, proficiency was gained in ARIMA and SARIMAX, advanced time series forecasting techniques. This expertise enabled effective prediction of year-over-year growth for specific industries for the next two quarters, thereby enhancing the application's forecasting capabilities.

Improved Skills: Time Series Forecasting(ARIMA, SARIMAX, PROPHET, LSTM)

SMART FRIDGE

Project Website *View Code*

For the graduate project, collaboration was undertaken with the Food Engineering Department to design a model capable of detecting fruits and vegetables, identifying rotten parts, and providing inventory results showing the quantity and percentage of rotten items. YoloV8 and fine-tuned ResNet-101 were used for this task. The aim of the project was to reduce food waste, and it was one of the European Union-funded projects called “Wasteless” at our university.

Improved Skills: Computer Vision, Image Processing, Model Deployment

SURFING THE BITCON WAVES

View Code

The influence of various trader types (Global traders, top traders, automated bots, whale traders) on the Bitcoin market was investigated. Deep learning and machine learning techniques were employed to analyze historical price data and other relevant factors impacting market fluctuations. This research was conducted to understand how these trader behaviors affect the market and to identify potential strategies for regular traders to make more informed decisions.

Improved Skills: Time Series Analysis and Forecasting