

# EMRE ÇOBAN

### ARTIFICIAL INTELLIGENCE ENGINEER



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# **EDUCATION Hacettepe University**

Artificial Intelligence Engineering 2020-2024

3.55/4.00 GPA

### SOCIAL



<u>LinkedIn</u>



Medium



### **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 MF**

As a Al Engineer graduated from Hacettepe University, I've acquired valuable experience through part-time internships at SisaSoft, TAI, and HAVELSAN, alongside a part-time role at DATASCOPE Al. My expertise encompasses deep learning and data science, where I've developed skills in model development, optimization, and deployment. I excel in handling complex datasets and deriving insights to solve real-world problems. With a strong foundation in mathematics, statistics, and programming, I'm dedicated to staying abreast of the latest advancements in the field.

#### **EXPERIENCE**

#### HAVELSAN

Candidate Al Engineer (March 2024 - Present)

After my successful internship at HAVELSAN, I started as a Candidate Engineer in the company. Nowadays I am working in the field of time series forecasting and exploring state-of-the-art methods.

Improved Skills: PyTorch, Time Series Analysis, Tensorflow

#### • DATASCOPE AI

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

I served as both an AI Engineer and Founding Engineer at DataScope, playing a pivotal role in the company's early stages. Working within the AI Team, we successfully undertook projects for TUBITAK and Sabancı, showcasing our expertise in artificial intelligence. Notably, I contributed to a significant project involving the development of a chatbot for ÇİMSA, demonstrating our ability to implement AI solutions in practical applications. Additionally, my responsibilities extended to engaging in time series analysis, contributing valuable insights and solutions to support Sabancı Holding's objectives. Our team's dedication and capabilities were further demonstrated through participation in the Sabancı ARF program. Furthermore, our commitment to excellence was acknowledged as we were accepted into TUBITAK 1507, further validating the quality and impact of our project work.

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

#### HAVELSAN

Al Engineering Intern (July 2023-August 2023)

I have worked in the field of Computer Vision and Time Series analysis. I enhanced my skills in both time series analysis and Computer Vision. Computer vision project centered on 3D Scene Reconstruction. The time series project was more about creating a pipeline for predictive maintenance in the Digital Twin department.

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

#### • TURKISH AEROSPACE INDUSTRIES (TAI)

Al Engineering Intern (November 2022-May 2023

I have worked as a Sky Experience Intern with the AI Team. Improved my skills in Data Science and Data Analysis. The project was about analyzing time series data and trying to get rid of anomalies by trying different approaches and evaluating results.

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

# • SISASOFT BİLGİ TEKNOLOJİLERİ VE İNOVASYON A.Ş.

Al Engineering Intern (June 2022-August 2022)

I have worked on Deep Learning, especially in Computer Vision with the AI Team. The Project was about detecting tree species, heights, and number of trees from satellite or UAV images. This project helped me to get the main ideas of a project pipeline and computer vision tasks.

Improved Skills: PyTorch, TensorFlow, Deep Learning

## **PROJECTS**

#### BANK MARKETING PROJECT

View Code

This is a Data Mining project based on a binary classification problem that I developed. The dataset was taken from the "data.world" and contains banking data including customer information such as marital status, education, etc. I used Data Science techniques to evaluate and inspect ML models and compared them to get satisfying results.

Improved Skills: Data Analysis, Data Science Pipeline

### **GENERATE QUESTIONS WITH CUSTOM DATA**

View Code

This is an NLP Project aiming to generate a question given a context. Me and my friend created this project. We first tried to create a seq2seq model using LSTM but later on we decided to use the T5 base model and fine-tuned it. Our model has 2 steps first it generates possible answers with the help of keyword extraction then it generates questions with given answers using the attention mechanism.

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

#### INDUSTRY CYCLES APP

While contributing to the industry cycles application, I became proficient in ARIMA and SARIMAX, advanced time series forecasting techniques. This expertise allowed me to effectively predict the year-over-year growth of specific industries for the next two quarters, enhancing the application's forecasting capabilities.

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

#### **SMART FRIDGE**

<u>Project Website</u> <u>View Code</u>

For the graduate project, my three friends and I collaborated with the Food Engineering Department to design a model capable of detecting fruits-vegetables and rotten parts and giving inventory results showing how many fruits-vegetables and what percentage of each fruit-vegetable is rotten. We used YoloV8 and fine-tuned ResNet-101 for this task. With the help of this project, we aimed to reduce food waste, this project was one of the projects that is European Union Funded called "Wasteless" in our University.

Improved Skills: Computer Vision, Image Processing, Model Deployment

#### SURFING THE BITCON WAVES

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

**Improved Skills:** Time Series Analysis and Forecasting