# Selman Dedeakayoğulları

# Jr. Al Engineer

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#### **PROFILE**

Known for combining technical expertise with a positive and engaging team spirit, I work in the field of artificial intelligence and software development, particularly focusing on large language models (LLMs) and computer vision.

I enjoy generating original ideas and implementing them in the most practical and effective way.

I believe that collaboration amplifies success, and I always strive to elevate both performance and team morale in every project I contribute to.

#### **EDUCATION**

Eskişehir Technical University, Computer Engineering ∂ 2021 – 2025 Graduated with GPA 3.15/4.0. Eskişehir, Turkey

**Vorarlberg University of Applied Sciences**, Exchange Semester *⊗* 2023

Studied Al-focused courses in an international setting. Voluntarily attended a Master's Dornbirn, Austria level **Computer Vision** course alongside MSc students to deepen technical knowledge.

University Of Turkish Aeronautical Association, Computer Engineering *⊘* 2020 − 2021

Transferred after first year with GPA 3.43

Ankara, Turkey

Member of IEEE UTAA Computer Society

Member of UTAA Google Developer Students Club

#### **WORK EXPERIENCE**

Al Engineer Intern, Arena ⊘ Dec 2023 − Mar 2025

Developed and maintained chatbots for enterprise clients in Turkey and abroad using **Druid AI**. Delivered PoCs and provided ongoing support. Built LLM-based solutions using **LLaMA**, **GPT-4**, **GPT-40**, and **GPT-4 Vision**.

Software Engineering Intern, Turkish Aerospace Industries *⊗* Nov 2022 − Jan 2023

Contributed to backend development for various internal modules. Gained experience in large-scale systems. Left early due to Erasmus study abroad program.

Computer Vision Intern, Visea Innovative 

✓ Jul 2022 – Aug 2022

Built classification and segmentation models using **PyTorch** and **TensorFlow**. Worked with diverse architectures including **ResNet**, **U-Net**, **MobileNet**, **EfficientNet**, and **VGG**.

#### **SKILLS**

#### **Computer Vision**

OpenCV, PyTorch, Numpy, Tensorflow, Keras, CNNs, YOLO, Stable Diffusion Models, Vision Language Models

#### **Natural Language Processing**

HuggingFace Transformers, Langchain, LangGraph, Ollama, Smolagents, Prompt Engineering, Retrieval Augmented Generation, Few-shot Prompting, , Gemini API ,OpenAl API, RNNs

#### **Data Analysis & Visualization**

Matplotlib, Numpy, Pandas, Seaborn, Scikit-learn, SQL

#### **Software Engineering**

Python, Java, Git, Flask, FastAPI, MongoDB, SQLite, Low Code Development, Selenium, Streamlit, Gradio

#### **PROJECTS**

# Agentic Portfolio Chatbot, Agents&Gemini API @

Developed an Al-powered portfolio chatbot using Google Gemini and Streamlit, which is fully functional in my portfolio website live.

The system answers questions about my background, projects, and skills, and allows direct contact via secure email. Integrated a recruiter tool that analyzes any job description and reports my compatibility percentage, highlighting matched skills and experience.

# Social Media Analysis for Earthquake Victim Reports, Large Language Models ∂

Developed a multimodal AI system combining LLM-based information extraction from social media with drone-based visual verification. Achieved high accuracy in identifying urgent needs, locations, and structural damage to support real-time disaster response.

#### Gendiary: New-Gen Social Media via Stable Diffusion, Stable Diffusion ∅

A Social Media Application using Stable Diffusion for Creating Content, for Software Engineering Course Project

#### Image Captioning Project, Vision Language Models

Fine tuned several VLM's and optimized the pipelines for an AI competition.

#### Face Recognition Application, PyTorch ∅

MT-CNN based Face Recognition application. Also published an article about it on Medium account.

## Media Control with Gesture Recognition, Scikit-learn ⊘

Machine Learning Course Term Project using MediaPipe and custom algorithms to detect different gestures.

#### City Sounds Classification, TensorFlow ∂

Global AI Hub Deep Learning Bootcamp Project.

Sound spectrograms from UrbanSound8K dataset used for classification.

#### **REFERENCES**

# Alperen Enes BAYAR, Al Research Engineer, HAVELSAN

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**Abdullatif BABA**, Associate Professor, Kuwait College of Science and Technology ababa@thk.edu.tr

**Mehmet KOÇ**, Associate Professor, Eskişehir Technical University mehmetkoc@eskisehir.edu.tr

**Sema CANDEMİR**, *Associate Professor*, Eskişehir Technical University semacandemir@eskisehir.edu.tr

# **ORGANIZATIONS**

# IEEE Computer Society Turkey Chapter, Central Anatolia Coordinator

Sep 2021 - Sep 2022

As the coordinator, I was responsible for the IEEE CS chairpersons of the universities in the Central Anatolia region.

#### AWARDS LANGUAGES

#### **TEKNOFEST T3 AI Hackathon 2024 Finalist,**

T3 (Türkiye Technology Team)

Selected among 200+ teams to develop an LLM-based project within 48 hours at the T3 Al Hackathon.

# OBSS Code Master 2022, OBSS

Ranked 1st among university participants in an algorithm-based problem-solving competition

# EESTech Al Solutions Challenge, EESTEC LC Eskişehir

Created sentimental analysis solution in an hackathon within 4 hours. Achieved 2nd Place

English  $-B2 \mid German - A1 \mid Turkish$