# Mehmet Gür

#### ARTIFICIAL INTELLIGENCE ENGINEERING STUDENT

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### **Education**

#### **TOBB Economy and Technology University**

Ankara, Turkey

Undergraduate in Artificial Intelligence Engineering

September 2020 - Present

- · 4th-Year Artificial Intelligence Engineering Student
- President TOBB ETÜ AI Club, Board Member TOBB ETÜ Computer Society
- Courses: Computer Programming I-II, Data Structures, Data Science, Probability and Statistics I-II, Artificial Intelligence, Machine Learning, Data Mining, Deep Learning, Image Processing, Biometric Recognition, Natural Language Processing.

### **Work Experience**

SportationAI Remote

Computer Vision Engineer (Contract)

January 2025 - Present

- · Developed computer vision models to detect and track players, referees, and the ball in full-match football videos.
- Built a multi-object tracking pipeline to maintain consistent identities and generate smooth trajectory data.
- Calibrated camera views with homography transforms to map video frames onto real-world pitch coordinates.
- Structured RL-ready datasets to power downstream reinforcement learning and sports analytics applications.
- Technical Skills: Python, OpenCV, PyTorch, YOLO, ByteTrack, Kalman Filters, Homography Calibration, UMAP.

Outlier Remote

AI Training Coding Expert (Contract)

October 2024 - Present

- Working remotely to enhance generative AI models through Reinforcement Learning from Human Feedback (RLHF). Responsibilities include evaluating, correcting, and updating AI-generated code to improve model performance and reliability across diverse programming tasks.
- Technical Skills: Python, Prompt Engineering, RLHF, Software Debugging, Code Refactoring.

**Jotform** Ankara, Turkey

Long Term AI Engineer Intern

January 2025 - April 2025

- Built and compared vector-based RAG and structured Graph-RAG/KAG systems by implementing both architectures and analyzing their retrieval performance for AI agents.
- Developed a semantic-chunking strategy that increased vector-database accuracy on lengthy knowledge-base documents.
- Tuned embedding and search parameters in Qdrant and introduced keyword-aware hybrid re-ranking, improving top-k recall.
- Developed an independent multi-agent AI system, enabling collaborative and modular task execution.
- Technical Skills: Pythop, PHP, Vector Databases (Qdrant), Graph Databases (ArangoDB), Semantic Chunking, RAG Performance Tuning, Prompt Engineering, Multi Agent Systems (Autogen).

### Skills

Python, Data Analysis & Machine Learning (Pandas, NumPy, Matplotlib, scikit-learn), Deep Learning (TensorFlow/Keras, PyTorch), Multi-Agent Systems, Computer Vision (OpenCV), Natural Language Processing.

## **Projects**

#### **Multi Agent Personal Assistant**

Created an AI-driven, 11 specialized agent platform with AutoGen and OpenAI LLMs to automate task management, communication, and information retrieval; leveraged AutoGen Studio's real-time UI for real-time workflow visualization.

#### AutoRAG: Local & Turkish Language RAG System

Developed a fully local, Dockerized RAG system designed for Turkish-language documents, featuring a GUI that allows users to select LLMs, embedding models, and retrieval parameters. Optimized chunking and prompt strategies specifically for Turkish to enhance answer quality.

### **Image Captioning**

Built a transformer-based image captioning system using a ViT encoder and GPT-2 decoder, with training on the Flickr8k dataset and evaluation via standard NLP metrics and deployed an interactive Streamlit app for result visualization.

### **Iris Eye Recognition**

Developed a CNN-based iris recognition system on the CASIA-Thousand dataset, combining advanced preprocessing and adaptive training techniques to achieve 92.45% accuracy and 0.023 EER.

## Languages