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

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.

SportationAI *Remote*

Computer Vision Engineer (Contract)

January 2025 - Present

- Architected YOLO-based detectors to pinpoint players, goalkeepers, referees, and the ball across full-match video with high accuracy.
- Engineered a robust multi-object tracking pipeline using Kalman filters and ByteTrack, preserving identity through occlusions and producing smooth trajectory outputs.
- Calibrated cameras via homography transforms to convert pixel coordinates into precise, real-world pitch measurements.
- Extracted spatial (X, Y) coordinates for each tracked object and computed per-frame metrics—instantaneous speed, movement direction, and cumulative distance traveled.
- Assembled and validated RL-ready datasets from these features, enabling seamless handoff to reinforcement learning workflows.
- **Technical Skills:** Python, OpenCV, PyTorch, YOLO, ByteTrack, Kalman Filters, Homography Calibration, UMAP.

Jotform *Ankara, Turkey*

Long Term AI Engineer Intern

January 2025 - April 2025

- Enhanced an AI agent product by comparing Retrieval-Augmented Generation (RAG) and Graph-RAG/KAG workflows, applying graph traversal for richer context retrieval.
- 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 a multi-agent personal assistant using AutoGen's prompt-driven agent orchestration.
- **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.

Image Captioning

Developed a a transformer-based image captioning pipeline on the Flickr8k dataset using a Vision Transformer encoder and GPT-2 decoder, incorporating dynamic data augmentation and configurable hyperparameters; trained with Hugging Face's Seq2SeqTrainer, evaluated via ROUGE metrics for caption quality, and deployed an interactive Streamlit app for result visualization.

Irıs Eye Recognition

Developed a high-precision iris biometric pipeline on the CASIA-Thousand dataset by integrating advanced preprocessing (Gaussian blur/Circular Hough segmentation, CLAHE, Gabor filtering) with a custom CNN featuring batch normalization, leaky ReLU, dropout, and adaptive learning-rate scheduling—achieving 92.45% test accuracy and a 0.023 Equal Error Rate.

Languages

Turkish(Native) - **English**(Professional) - **Spanish**(Elementary)