Defne Buse Çelik

✉ daphnebuse@gmail.com

in https://www.linkedin.com/in/defne-buse-celik/

○ https://github.com/defnebusecelik

●◖ https://medium.com/@daphnebuse

▶ https://www.youtube.com/channel/UCXqx4MqFfw
QWRcuRVLu_PHg

Education

2021/09 – 2025/06 Ankara, Türkiye	**Bachelor Degree** *Gazi University, Computer Engineering* ⍈ I graduated as the top student of the department with a GPA of 3.85/4.00.
2017/09 – 2021/06 Izmir, Türkiye	**High School** *Izmir Atatürk High School* ⍈

Professional Experience

2025/02 – 2025/07 Kocaeli, Türkiye	**IT Team Assistant** *Akbank T.A.Ş.* ⍈ I contributed to the development of a user authentication microservice, where I was involved in designing and implementing database operations using SQL. Additionally, I created and executed test scripts using Postman to ensure the reliability and functionality of the service.
2024/11 – 2025/06 Istanbul, Türkiye	**Data Science Intern** *Bluearf* ⍈ I developed and operated BigQuery and Firebase database systems. I built the Enerjisa Sustainability Report Analyzer project using OpenAI models. My work included implementing embedding models, performing vector search and text similarity operations and creating OpenAI assistants. I also developed AI agents with Web UI, created admin reports using the Websearch API and conducted data visualization using D3 and Plotly. Additionally, I carried out data cleaning tasks and worked with Docker containers, Selenium and API development.
2024/08 – 2025/02 Ankara, Türkiye	**AI & Innovation Technologies Intern** *HAVELSAN* ⍈ I worked with LLM models in the MAIN project carried out by the institution. I researched and developed HybridRAG models by integrating VectorRAG and GraphRAG. I performed operations on Pinecone and Neo4j databases, developed a pipeline combining NER, HybridRAG, and dynamic weighting model development. I authored patents to TürkPatent for pipeline development and hierarchical softmax architecture, conducted RAG benchmark tests and prepared a RegNLP Workshop paper for COLING 2025.
2024/09 – 2025/02 Istanbul, Türkiye	**GenAI Prompt Engineer** *AIVA Tech* ⍈ I created use case workflows and designed AI prompts integrated into these workflows. I developed RPA automations tailored to the specific applications used by customers, ensuring seamless integration and improved process efficiency.

2024/07 – 2024/08 Ankara, Türkiye	**Data Science Intern** *Jotform* ⊡ I masked fields containing sensitive data from GPT LLM responses using Guardrails AI, performed prompt injection, applied RegexMatch to sensitive data in incoming responses and utilized competitor check, random check, toxic language control, and PII detection for prompt responses.
2024/02 – 2024/10 Remote, Türkiye	**Software Developer Intern** *Boolstudio* ⊡ I carried out full stack development of a web panel for the https://yerkap.com/ ⊡ application, created a bot using Google Gemini, and implemented usability testing for the application.
2024/01 Ankara, Türkiye	**Researcher Intern** *TUBITAK* I have been accepted as an intern researcher to the project titled "Development of Biomarker And Advanced Technological Warning Systems for the Diagnosis, Monitoring And Treatment of Neuron Damage Related Diseases" within the scope of TUBITAK 2247-C STAR Program.
2023/08 – 2023/09 Izmir, Türkiye	**Software Developer Intern** *Izmir Governorship* ⊡ During my internship, I have dealt with different jobs, from computer formatting, hardware malfunctions, to governor/municipal systems and authorization. I used Microsoft SQL Server. I did operations with Excel. I coded it in C#. I've seen CISCO transactions for phone systems and computer networks.
2023/08 Remote	**Python Developer & Tutor** *Kodland* ⊡ Kodland company is an e-learning company that teaches various programming languages to children aged 8-17. I teach children algorithm logic and the Python programming language. Apart from that, I develop various programming activities on Python.

Skills

Data Science & Data Analysis	Machine Learning & Deep Learning & Feature Engineering
Large Language Models, RAG Systems	Object Oriented Programming
Data Visualization (Seaborn, Matplotlib, Plotly, D3)	Prompt Engineering
Computer Vision	Natural Language Processing
Project Management	C, C++, Java, Python
SQL, Microsoft SQL Server, MySQL, PostgreSQL, Firebase, BigQuery	Microsoft Power BI
AI Agents & AI Assistants	Prompt Engineering
Frontend Development	

Languages

English	**Turkish**	**German**
Intermediate	Native	Beginner

Certificates

- Akbank Data Analysis Bootcamp ⧉
- Monovi Technology Agile/Scrum ⧉
- Huawei ICT Academy Webinar on Python Programming
- Patika.dev Web3.0 ⧉
- Global AI Hub Deep Learning Bootcamp ⧉
- Türkiye İş Bankası ProSchool Data & AI Class ⧉
- Miuul Machine Learning Summer Camp ⧉
- Istanbul Data Science Academy Google Cloud Data Analyst Boostcamp
- DataCamp Machine Learning
- Microsoft Women AI Hackathon

Organizations

2024/08 Türkiye	**Global AI Hub** *Mentor*	
2022/09 – 2023/03 Ankara, Türkiye	**Gazi University Blockchain Community** *General Manager*	
2022/09 Ankara, Türkiye	**Gazi University Artificial Intelligence Community** *Member*	
2023/07	**Women Techmakers** ⧉ *WTM Member*	

Projects

Detection of Multiple Myeloma Plasma Cells with Artificial Intelligence-Based Software ⧉
Our project involved utilizing a range of technologies, including Flask, JavaScript, MySQL, TensorFlow, Python, and YOLOv8, with the primary objective of detecting multiple myeloma plasma cells in medical images.

Development of Biomarker And Advanced Technological Warning Systems for The Diagnosis, Monitoring and Treatment of Neuron Damage Related Diseases ⧉
Pain detection was performed using the FACS method, taking into account the AU values of facial expressions. These values were calculated using computer vision techniques implemented with MediaPipe and OpenCV. AU values were classified using formulas in the literature and pain status was determined.

Analysis of Waveform Types According to Noise-Added Data with Classification Model ⧉
This study examines the effects of noise on waveform data in electronic circuits and telecommunication systems, aiming to classify waveform types and develop a noise-resistant machine learning model. Using a dataset of 5,000 samples with 21 features from the UCI Machine Learning Repository, machine learning algorithms were tested.

Regulatory Natural Language Processing (RegNLP) Workshop in conjunction with COLING 2025 Conference ⧉
Completing the retrieval part with the team and creating a paper in accordance with the data set given in the competition.

Teknofest Project
Robotaxy Competition

References

Alper KARAMANLIOĞLU, *Data Architect,* Türksat Uydu Haberleşme Kablo TV ve İşletme A.Ş.

Süleyman KAPLAN, *Founder,* AIVA Tech

Murat AĞYÜZ, *Co-Founder,* BoolStudio