

Murat Küçük

✉ muratkucukoff01@gmail.com

☎ 0545 240 63 55

🔗 muratkck.github.io

in [muratkck](#)

🔗 [muratkck](#)

Education

Izmir Institute of Technology, B.S Computer Engineering

Oct 2020 – June 2025

GPA: 3.33/4.0

Coursework: Object-Oriented Programming, Data Structures & Algorithms, Relational Databases, Heterogeneous Parallel Programming, Project Management, Software Engineering, Linear Algebra, Probability & Statistics, Fuzzy Logic Systems, Evolutionary Computation, Deep Learning, Deep Learning for NLP, Fundamentals of Enterprise Application Development, Genetic Algorithms

Experience

AnalystAI 🔗 *Full-Stack Developer*

June 2025 – Jan 2026

- Initially contributed to the development of web scrapers using Cloudscraper and SeleniumBase to track real estate auctions and aggregate multifamily housing data; over time, became the sole owner of this project, taking full responsibility for data accuracy, system reliability, and ongoing maintenance, as well as implementing new features when required.
- Built a microservices-based RAG application, implementing a Model Context Protocol (MCP) agent for efficient document parsing.
- Developed full-stack features using FastAPI and React.
- Optimized application performance by integrating Redis for caching and resolving critical backend-frontend synchronization bugs.

AnalystAI 🔗 *Part-time Full-Stack Developer*

Feb 2025 – June 2025

- Developed the backend for an LLM-driven options trading application, automating financial news analysis and historical stock data retrieval to generate custom-formatted investment reports.
- Contributed to the development and maintenance of auction tracking scrapers using Cloudscraper and SeleniumBase, implementing new features to ensure accurate bid value and real estate information retrieval.

TÜBİTAK Project 🔗 *Scholar in an NLP Project as Computer Engineer*

Dec 2024 - Feb 2025

- Contributed to an NLP project focused on Ottoman-Turkish author documents (1900-1950), using sentiment-based network analysis to reconstruct historical literary networks.
- Annotated datasets for Named Entity Recognition (NER) to extract key entities from complex historical texts.
- Improved model accuracy from 85% to 90% by researching and recommending Aspect-Based Sentiment Analysis (ABSA) technique to refine sentiment detection.

Ucanble Tech 🔗 *NLP Engineer Intern (Volunteer)*

Sept 2024 - Dec 2024

- Designed and built a RAG-based LLM application to automate queries regarding TÜBİTAK application forms.
- Implemented the full data pipeline, including document parsing, vectorization, and embedding storage to enable accurate context retrieval.

OBSS 🔗 *Software Engineer Intern (Java Ignite Program)*

July 2024 - Aug 2024

- Completed an intensive 4-week training program focused on enterprise Java development, mastering Core Java, Servlets, JSP, and the Spring Framework.

- Designed and deployed a full-stack capstone project, building RESTful APIs with Java Spring and integrating them with a React frontend.

Publications

Automating software size measurement from python code using language models

Nov 2025



S. Tenekeci, H. Ünlü, B. A. Gül, D. Keleş, **M. Küçük**, O. Demirörs
Automated Software Engineering (Springer), Vol. 33, Issue 1

- Co-authored a study demonstrating that CodeBERT can automatically measure software size from Python source code—achieving up to 91.4% accuracy in COSMIC Function Point estimation and 81.5% accuracy in MicroM event classification—showcasing the feasibility of code-based functional size measurement when requirements are incomplete or unavailable.

Skills

English: B2

AI & NLP: Large Language Models (LLMs), RAG, GraphRAG, Prompt Engineering, LangChain, Spacy, TensorFlow, Scikit-learn, NER, Sentiment Analysis

Languages: Java, Python, ABAP, C, SQL, JavaScript, HTML/CSS

Frameworks: FastAPI, Spring Boot, React

Libraries: SeleniumBase, Cloudscraper, Pandas, NumPy, Matplotlib

Tools & Platforms: Docker, Redis, PostgreSQL, MySQL, Supabase, MongoDB, Git/GitHub, CUDA, SAP, Unix Shell

Certificates

1. Supervised Machine Learning: Regression and Classification - Coursera
2. Advanced Learning Algorithms - Coursera
3. Deep Learning ve Python: A'dan Z'ye Derin Öğrenme (5) - Udemy
4. Fundamentals of Accelerated Computing with CUDA C/C - NVIDIA
5. Accelerating CUDA C++ Applications with Concurrent Streams - NVIDIA
6. Scaling Workloads Across Multiple GPUs with CUDA C - NVIDIA
7. React 101 - Turkcell
8. React 201 - Turkcell
9. FastAPI - The Complete Course 2026 (Beginner + Advanced) - Udemy

About Me

I am a Computer Engineer graduated from the Izmir Institute of Technology (IZTECH) with a strong interest in designing and developing well-structured software systems. Over time, I have gained experience in both Full-Stack and Backend development, working mainly with *Java (Spring)*, *Python (FastAPI)*, and *React*.

During my internship at OBSS and through various academic and personal projects, I have worked on end-to-end application development, gaining a clear understanding of how front-end, back-end, and deployment processes interact in real-world systems.

Alongside traditional software engineering, I have continued exploring *AI and NLP*, including LLM-based systems such as RAG pipelines and agent-based architectures. I enjoy integrating these modern approaches into practical applications and improving products with intelligent, data-driven features.

I am motivated by solving complex problems, learning new technologies, and contributing to meaningful projects. I am open to opportunities in Full-Stack development, Backend engineering, and AI-focused roles.

References

Ata Onat Founder, AnalystAI

✉ ataonat00@gmail.com

☎ 0 507 282 5084