

Uğur Özcan

Senior Data Engineer | Tech Lead | AI & Backend Specialist

Mugla/TURKEY
+90 (534) 364 4085
ugurozcan108@gmail.com
<https://uozcan12.github.io>

Professional Summary

Strategic and results-driven **Senior Data Engineer & Technical Lead** with 7+ years of experience in architecting scalable data ecosystems and AI-driven solutions. Proven expertise in **optimizing Big Data pipelines (Spark)**, achieving up to **58% performance gains**, and leading cross-functional teams in high-stakes environments like **Huawei**. Specialized in **LLM fine-tuning (SFT)**, advanced **Prompt Engineering**, and complex **Data Governance** across global infrastructures. A former **Founding Engineer** with a unique blend of deep technical mastery in **3D simulation** and a strong track record of mentoring engineering teams to deliver mission-critical software.

Work Experience & Internships

07/2025 - Present

Huawei

Remote, Turkey

Senior Data Engineer / Tech Lead

- Technical Leadership: Responsible for the technical direction of the team, enforcing best practices, and overseeing codebase review processes to ensure high code quality and consistency.
- Performance Optimization: Architected improvements for **TPP Spark and File System** codebases, achieving a **58.9% reduction** in execution time (from 908s to 373s) through parallel processing.
- Data Governance: Engineered end-to-end ETL pipelines for **MENA** projects, integrating data from **ElasticSearch, MongoDB, and SAP** into Agent Databases.
- Project Management: Successfully delivered 10+ high-priority crawling projects and developed an internal **Kanban System (DTWF)** for workload tracking.
- Multilingual Support: Managed TPP/PP configurations and dataset acquisition across 7 languages including Arabic, Russian, Portuguese, Spanish, French, Turkish, and Swahili.
- System Development: Developed a Django-based service for the CV (Computer Vision) team and delivered a full-stack mini-service (FE-BE integration) for the **CCTV Environment** project.
- Training: Provided professional **Django Training** sessions to multiple cross-functional teams within the SADC department.

01/2023 - 07/2025

Huawei

Remote, Turkey

Data Engineer

- LLM Project: Directed SFT data preparation (Summarization, Brainstorming) and performed advanced Prompt Engineering for **GPT-3.5 and GPT-4**.
- Data Engineering: Spearheaded large-scale image/text dataset acquisition by managing **VMs and Docker containers** for the Petal Search ecosystem.
- Internal Tools: Developed 'Common Crawler v1.0' and 'Text Preprocessing Tool', significantly increasing team-wide ETL and data analysis efficiency.
- NLP Initiatives: Orchestrated textual data aggregation and categorization to support natural language processing and flower data template initiatives.
- System Maintenance: Managed automated crawling pipelines, addressed critical bug fixes, and integrated new content providers for Search services.
- DevOps & Quality: Implemented codebase review processes and managed team repositories to ensure high code quality and seamless version control.

11/2022 - 01/2023

Quick and Quality Coding Soft

Remote, Turkey

Software Engineer

- NLP Project: Developed an automated analysis system for medical notes using **Python, OpenAI API, and HuggingFace**.

06/2022 - 11/2022

Osoci

İstanbul, Turkey

Backend Developer

	<ul style="list-style-type: none"> ○ Infrastructure: Architected backend services and database structures using NestJS, Docker Compose, and MongoDB. ○ Media Services: Researched and integrated real-time stream services utilizing Janus WebRTC and Ant Media Server. ○ DevOps: Established CI/CD pipelines via Jenkins and implemented system monitoring with Grafana. 	
06/2019 - 06/2022	Fited <i>Founding Engineer & Software Engineer</i> <ul style="list-style-type: none"> ○ 3D Simulation: Developed a web-based Scoliosis Brace design platform using ThreeJS and complex Mathematical Equations. ○ Cloud Architecture: Managed full-stack infrastructure on Google Cloud Platform (GCP) using App Engine, Compute Engine, and Firebase. ○ R&D: Conducted reverse engineering on Rhinoceros7/Grasshopper using NURBSPython and rhino3dm libraries for 3D modeling automation. ○ Workflow: Built automated testing suites with Selenium and developed backend interfaces using Flask. 	İzmir, Turkey
10/2017 - 06/2018	IZTECH - CSIGB Research Group <i>Msc. Student, Software Engineer</i> <ul style="list-style-type: none"> ○ Computer Vision: Developed deep learning models for Automated Latent Fingerprint Recognition (TUBITAK 1001) using PyTorch and TensorFlow. ○ Biometrics Research: Conducted advanced research on Face, Iris, and Gait Recognition algorithms using OpenCV. ○ Data Analysis: Generated and analyzed synthetic biometric databases for AFIS (Automated Fingerprint Identification System). 	İzmir, Turkey
06/2016 - 09/2016	Radboud University <i>Erasmus Internship Programme</i> <ul style="list-style-type: none"> ○ Big Data Analysis: Processed and analyzed over 1GB of social media (Twitter) data focusing on complex topics like public health and sociology. ○ Machine Learning: Developed and deployed Classification and Clustering algorithms on the university's high-performance servers. ○ Backend Development: Engineered RESTful APIs using Flask API and Eve API to serve project data. ○ Database Management: Designed and managed the project's data storage layers using MongoDB. ○ Full-Stack Contribution: Developed the Relevancer Project dashboard and implemented core content features. ○ Project Links: relevancer.science.ru.nl/about bitbucket.org/hurrial/relevancer 	Nijmegen, Netherlands
06/2015 - 08/2015	Computer Engineering Department <i>Internship</i> <ul style="list-style-type: none"> ○ Cybersecurity & Privacy: Researched database encryption and security protocols using CryptDB on Ubuntu environments. ○ Software Development: Designed and implemented Graphical User Interfaces (GUI) using NetBeans and Java. 	Muğla, Turkey

Skills, Qualifications & Interests

Languages	Python, JavaScript (Node.js), TypeScript, Java, SQL, R, Haskell
AI & Data	LLM (GPT-4), NLP, PyTorch, TensorFlow, Keras, Pandas, NumPy, Scikit-Learn, Computer Vision
Backend & Cloud	Docker, Kubernetes, Jenkins, GCP (Google Cloud), MongoDB, PostgreSQL, Redis, Flask, FastAPI, NestJS, Django
Web & 3D	ThreeJS, React/Vue.js familiarity, HTML5/CSS3, WebGL
Tools & OS	Linux/Ubuntu, Git, LaTeX, Grafana, Selenium, Rhino7/Grasshopper