Ferhat Rudvanoğulları

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SKILLS

Data Engineering: Python, SQL, PostgreSQL, ETL/ELT Pipelines, Data Validation & Quality, Docker, GCP, AWS, S3, n8n, Web Scraping, API Integration, Git, CI/CD, Linux
Software Development: TypeScript/JavaScript, React, Next.js, Express, Hono, FastAPI, Cloudflare Workers
AI/ML: LangChain, PyTorch, TensorFlow, NumPy, Pandas

EXPERIENCE

Data Engineer · SupplyBridge (Remote) **March 2026 – Present**

- Design, develop, and maintain scalable ETL pipelines for a live automotive supply-chain platform, sourcing data via API integrations and web scraping.
- Own end-to-end ETL workflows across GCP and AWS, optimizing for performance and reliability.
- Monitor and troubleshoot production data pipelines, building validation checks that safeguard data integrity.
- Deploy and maintain containerized services with Docker; administer a PostgreSQL database.
- Self-host a local LLM to clean and enrich incoming data.

SELECTED PROJECTS

VizCad, Cloud-based 3D Collaboration Platform, *2025*

- Designed and developed the full architecture of a CAD-focused SaaS platform using TypeScript and React.
- Modeled database schemas with Drizzle ORM (SQLite) to manage user logs and CAD data; handled indexing and query optimization.
- Built an object storage pipeline on Cloudflare R2 to automate large file management.
- Set up serverless deployments via Cloudflare Workers and configured CI/CD workflows.

AI Agent Developer · Independent Projects, *2025*

- Built an autonomous CV-to-job-listing compatibility evaluation agent using self-hosted n8n (Docker).
- Developed an SEO-focused blog writer agent with a tool-calling architecture using LangChain; integrated SERP API for competitor analysis and SearXNG for research.
- Extended agent reasoning capabilities through function calling and prompt engineering to enable multi-step workflows.

Deep Learning-Based ECG QRS Detection System, *2025*

- Labeled ECG data and trained a CNN-based detection model. Tools: PyTorch, TensorFlow, NumPy, Pandas.

Electrodynamic Levitation System – AI Control · TÜBİTAK 2209-A, *2025*

- Built a data acquisition and processing pipeline in MATLAB; developed and validated an MLP-based force prediction model on a real-world dataset.

Mechatronics R&D Engineer · STARLOOP – Hyperloop Team, *2021–2024*

- TEKNOFEST Hyperloop 2024: Second Place and Propulsion System Development Award. 2022: Technology Demonstration Award.
- Participated in European Hyperloop Week: 2023 Scotland, 2024 Zurich.

EDUCATION

Yıldız Technical University, Mechatronics Engineering 2021 – 2025 **İstanbul, TR**

AWARDS

- **TEKNOFEST Hyperloop – 2024: Second Place, Propulsion System Development Award**
- **TEKNOFEST Hyperloop – 2022: Technology Demonstration Award**
- **European Hyperloop Week Participant – 2023 (Scotland) & 2024 (Zurich)**