Rabia Yoruk

Senior Software Engineer

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Summary

Data and ML engineer with 7+ years of experience building data pipelines, forecasting models and the services that run them in production. Built a monitoring pipeline that processes about 60,000 records a day, shipped forecasting products used by about 1,000 investors and about 10 SMEs, and led the engineering team at OptiWisdom as Tech Lead. Works mainly in Python and SQL on AWS, GCP and Azure with Docker, Kubernetes and CI/CD, and builds LLM applications with RAG and AI agents. Published research on applied ML.

Experience

02/2025 - Present
Co-Founder, *Scrapus (side project, part-time)*, Tallinn, Estonia
- Built an automated web-monitoring product, first deployed for TEB (Turkish Pharmacists' Association): it scans online marketplaces for banned medicine listings and reports them into the client's systems.
- Collects and processes about 60,000 records per day for that client, end to end from collection to API delivery, with minimal maintenance.
- Built LLM agents and RAG pipelines that enrich, classify and qualify the collected data.
- Turning the platform into a general B2B data product; the approach is published in Frontiers in Artificial Intelligence (2025).

09/2025 - 11/2026
Senior Software Engineer, *PeK Automotive (Peker Holding)*, Slovenia · Remote
- Built backend services and workflows (Python, Django, Angular/TypeScript) for the company's manufacturing ERP, used in-house at its Slovenian electric and agricultural vehicle plant and by 4 enterprise customers.
- Worked with software teams in Slovenia and Türkiye to turn production and operations requirements into system workflows.

03/2025 - 06/2025
Senior Software Engineer, AI Platform, *SayAbra (startup)*, California, US · Remote
- Designed and built Sayabra.ai, an AI-powered cold-outreach platform for sales teams, end to end with React, Django and FastAPI: LLM features (RAG, agents), database design and cloud deployment; took the product from zero to its first trial users.

01/2023 - 05/2025
Tech Lead, *OptiWisdom*, Istanbul, Türkiye
- Led the engineering team running about 5 projects in parallel (20+ delivered) for enterprise clients including Turkcell, Sabancı DX, Entertech, Karayol Lastik and BEM Funding.
- Led the build of an AutoML platform for Turkcell (Next.js front end, Python services).
- Owned architecture and tech stack decisions for AI, data and software products; set up and ran client projects on AWS and GCP (incl. Firebase).
- Built event-driven backend and data services with Kafka and Node.js for enterprise client projects.
- Ran company operations with the founder: hiring, agile delivery and performance tracking.

02/2022 - 01/2023
Data Scientist & ML Engineer, *OptiWisdom*, Istanbul, Türkiye
- Kolay.AI: built forecasting models that predicted demand swings and disruptions for about 10 SME clients with 82.5% accuracy, used to plan inventory.
- XchangeWiser: built forecasting and simulation for a stock-market product that let about 1,000 individual investors see projected gains and losses; it ran for four years.
- Built scoring, segmentation and matching models with supervised and unsupervised methods.
- Set up CI/CD on AWS and Azure for model versioning, retraining and deployment; containerized services with Docker and ran them on Kubernetes and AWS ECS.

04/2020 - 02/2022
Software Engineer, Backend & Data, *OptiWisdom*, Antalya, Türkiye
- Designed and tuned PostgreSQL and MySQL schemas (indexing, query optimization) using SQLAlchemy and Django ORM.
- Built REST APIs and background job processing (Celery, Redis) in Flask and Django.

06/2019 - 09/2019 **Software Developer**, *Epigra*, Istanbul, Türkiye
- Built custom web applications and CMS projects in PHP/Laravel; worked on data modeling and API integrations.

01/2018 - 05/2019 **Python Developer**, *Bilkav Education and Consultancy*, Istanbul, Türkiye
- Wrote Python automation and data processing tools; co-authored two introductory programming books (internet fundamentals, C++).

Skills

Data & ML	Data pipelines, ETL, Airflow, Spark, Kafka, web data collection, forecasting, feature engineering, supervised/unsupervised ML, LLM apps (RAG, AI agents), AutoML, PyTorch (basic), model deployment, KNIME
Languages	Python, SQL, TypeScript/JavaScript, Java (working knowledge)
Cloud & DevOps	AWS (EC2, ECS, S3, RDS), GCP (incl. Firebase), Azure, Docker, Kubernetes, GitLab CI/CD
Databases & Backend	PostgreSQL, MySQL, Redis, Celery, Django, Flask, FastAPI, REST APIs
Spoken	Turkish (native), English (professional)

Education & Certifications

2027-2029	**M.S. Software and Security Engineering**, Texas Tech University, Dallas, TX
2017-2022	**B.S. Software Engineering**, Istanbul Sabahattin Zaim University, Istanbul
2024-2025	**Data Science coursework**, Galatasaray University, Istanbul
Certifications	AWS Certified Solutions Architect Associate (in progress, expected Dec 2026); Lean Six Sigma, Borusan Automotive, 2024

Publications

A review of AI-based business lead generation: Scrapus as a case study. *Frontiers in Artificial Intelligence*, 2025.

An AI-based personalised job recommendation and application assistant agent. *Journal of Data Analytics and AI Applications (D3AI)*, 2025.

Enhancing SME operations with machine learning and business intelligence: a case study of Kolay.ai. *D3AI*, 2025.

Customer lifetime value (Müşteri Yaşam Boyu Değeri), with E. Eşmekaya. *YBS Ansiklopedi*, 5(2), 2018.

Books (co-author, in Turkish, 2018): *How the Internet Works*; *Introduction to C++ for Beginners*.