

SENANUR CETIN

DATA SCIENTIST

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[Portfolio](#) | [GitHub](#) | [LinkedIn](#) | [Data Scientist AI credential](#)

PROFESSIONAL SUMMARY

Data scientist with project evidence in fraud ranking, financial time-series modeling and predictive maintenance. Uses Python, feature engineering, leakage-aware evaluation and holdout-based decision metrics to assess model usefulness. Combines applied machine learning and tested data pipelines with 3+ years of industrial automation engineering experience.

TECHNICAL SKILLS

Modeling: Python, pandas, NumPy, scikit-learn, LightGBM, XGBoost, HistGradientBoosting, feature engineering, SHAP

Validation: time-based holdouts, walk-forward CV with embargo, ROC-AUC, PR-AUC, threshold analysis, drift analysis, GroupKFold

Data / Delivery: SQL, BigQuery, DuckDB, dbt, FastAPI, Docker, MLflow, GitHub Actions

SELECTED PROJECTS | INDEPENDENT PORTFOLIO WORK

Fraud Risk Intelligence | IEEE-CIS | [GitHub repository](#)

- Built a LightGBM fraud-ranking workflow on 590,540 transactions with BigQuery, DuckDB, dbt and FastAPI; reported 0.9134 ROC-AUC and 0.5354 average precision on a time-based holdout.
- At a 5% review budget, the holdout risk queue captured 58.32% of fraud at 40.13% precision; implemented 126 dbt tests, 23 Python contract tests and 5 ML smoke tests.

MSCapital | Market Forecasting | [GitHub repository](#)

- Reduced 804.5M raw market rows to 1.26M modeling samples and 292 engineered features; trained LightGBM/XGBoost and linear baselines.
- Five-fold embargoed walk-forward ensemble mean cosine similarity was 0.14088; documented holdout-to-leaderboard drift and a lower 0.129 public leaderboard result.

Smart Factory | Predictive Maintenance | [GitHub repository](#)

- Modeled machine-failure risk from 10,000 simulated AI4I observations, achieving holdout ROC-AUC 0.9874 and PR-AUC 0.9019 with HistGradientBoosting.
- The top 10% review queue captured 94.1% of failures (9.4x random review); separately modeled NASA C-MAPSS remaining useful life with GroupKFold and RMSE 18.05 cycles.

PROFESSIONAL EXPERIENCE

Project Engineer | Arti Endustriyel Otomasyon Sistemleri | May 2024 - Jul 2025

- Validated Siemens PCS 7 control logic, I/O integrity and SCADA/HMI workflows during SOCAR refinery factory acceptance testing.
- Redesigned Marsa batch-production HMI screens around operator feedback to improve process visibility and usability.

Automation Software Engineer | Dehatech Electric & Automation | Jan 2023 - Apr 2024

- Built ABB 800xA operator interfaces and VMware ESXi infrastructure for a zinc-recovery facility; validated field signals and commissioning readiness.
- Integrated real-time gas-analyzer telemetry through Modbus TCP/IP and supported Siemens PCS 7/WinCC commissioning.

Project Engineer | KPI Automation | Feb 2022 - Jan 2023

- Supported PCS 7/WinCC modernization for Toros Tarim chemical-production lines, including VMware ESXi infrastructure, safety/interlock validation and centralized process-data integration.

EDUCATION & CERTIFICATIONS

Workintech Data Pro Program | Mar - Oct 2026 (completed, project-based training; not employment)

Eskisehir Osmangazi University | BSc, Electrical and Electronics Engineering, 2021

Anadolu University | BBA, Business Administration, 2020

Selected certificates: Workintech Data Scientist AI Certificate (Sep 2026); Google Cloud Introduction to Responsible AI (Jan 2025); CU Boulder Fundamentals of Software Architecture for Big Data (Mar 2024)

LANGUAGES Turkish (native) | English (professional working proficiency)