

Rana Irem Turhan

Istanbul, Turkey — DOB: 06 July 2001

iremturhan20001@gmail.com | +90 505 127 81 07 | LinkedIn | Linktree Portfolio | GitHub | Google Scholar

Summary

Early-career Data Analytics Engineer with practical experience in data warehousing, ETL validation, data quality assurance, analytics engineering, and applied machine learning. Developed expertise in SQL, Python, PostgreSQL, AWS, and Power BI through industry-focused projects involving reconciliation frameworks, analytical reporting, cloud-based data workflows, and predictive modeling. Contributed to AI and data-driven initiatives spanning Retrieval-Augmented Generation (RAG), industrial machine learning, and AI-powered product development. Combined technical execution with research, leadership, and community engagement through international conference participation, innovation programs, and technical education initiatives. Seeking opportunities at the intersection of Data Engineering, Analytics, and Applied AI.

Technical Skills

Programming / Query Languages: SQL, Python

Databases & DWH: PostgreSQL, ETL/ELT Pipelines, Data Warehousing, 3NF, Star Schema, Snowflake Schema, Data Modeling, Data Reconciliation, Data Quality Validation, Data Profiling

Cloud & Tools: AWS (S3, EC2, RDS, Redshift, Athena), Power BI, DBeaver, Git, GitHub, Jira, JMeter

Testing & Methodologies: ETL Testing, DWH Testing, Dashboard Testing, Test Case Design, Test Strategy, SDLC

AI / Analytics: Machine Learning, Retrieval-Augmented Generation (RAG), Prompt Engineering, Exploratory Data Analysis (EDA), Feature Engineering, Analytical Reporting

Languages: English (CEFR C1), Turkish (Native)

Experience

EPAM Systems

Oct 2025 – May 2026

Data Analytics Engineering Trainee

Remote

- Worked with multi-layer Data Warehouse architectures including Landing, 3NF, and Data Mart layers to support enterprise analytics workflows.
- Performed data reconciliation and quality validation between source and target systems using SQL and Python, identifying missing records, inconsistencies, and transformation issues.
- Developed SQL transformation logic using joins, CTEs, window functions, and transaction control concepts for analytical data processing.
- Conducted ETL and dashboard testing, validating completeness, consistency, accuracy, and transformation rules across data pipelines.
- Utilized AWS services including S3, Athena, Redshift, and RDS for data storage, querying, and analytics-related workflows.
- Prepared test strategies, test cases, bug reports, data mapping documentation, and data profiling reports to support validation activities.
- Developed Power BI dashboards and reports to support business-oriented analytics and KPI monitoring.
- Built Python-based validation and reconciliation scripts for anomaly detection and data consistency verification.
- Collaborated in Agile development environments, contributing to testing, debugging, and continuous improvement activities.

Data Science & ML Hub

2025 – Present

Technical Community Lead & AI Content Creator

Remote

- Led technical content initiatives and community activities focused on Data Engineering, Machine Learning, and Applied AI.
- Organized and moderated technical events, workshops, and knowledge-sharing sessions for students and early-career professionals.
- Created educational content translating complex topics such as ETL pipelines, data quality systems, analytics engineering, and machine learning into practical real-world applications.
- Contributed to community growth, engagement, and technical direction as part of the leadership team.
- Recognized as “Rising Voice of the Month” for impactful technical content and community contributions.

Selected Projects

Paint Factory Process Prediction | AI Club Datathon | Top 5 Finish

2026

- Ranked Top 5 in an industrial AI datathon using real-world manufacturing process data.
- Developed machine learning models to predict production process outcomes from sensor and operational signals.
- Applied process-aware feature engineering and leakage-safe validation strategies to ensure realistic model evaluation.
- Improved model MAE from approximately 27 to 21.82 through iterative experimentation and optimization.

FoodVision AI | AI-Powered Nutrition Intelligence Platform | Team Lead

2026

- Leading a multidisciplinary team in the early-stage design and development of an AI-powered nutrition intelligence platform as part of the Build Hub innovation program.
- Coordinating MVP definition, user persona development, feature prioritization, and product discovery activities to validate user needs and solution feasibility.
- Contributing to the design of a multi-layer AI architecture combining computer vision, LLM-based reasoning, structured food knowledge, explainability mechanisms, and safety-focused response generation.
- Facilitating collaboration among team members with backgrounds in AI, software development, business, and domain-specific fields to evaluate technical and product decisions.
- Exploring multilingual food datasets, responsible AI practices, and localization strategies for Turkish and international users.

Data Warehouse Reconciliation & Data Quality Validation

2026

- Developed SQL- and Python-based reconciliation frameworks to validate consistency between source systems and Data Warehouse layers.
- Implemented source-to-target validation logic to identify missing records, mismatched values, and data quality issues across ETL pipelines.
- Performed profiling, completeness checks, transformation validation, and anomaly detection using PostgreSQL and pandas.
- Produced reconciliation reports and testing documentation to support data quality assurance and warehouse reliability.

RAG-based SQL Chatbot | Global AI Hub & Akbank Generative AI Bootcamp

2025

- Developed a Retrieval-Augmented Generation (RAG) application enabling natural-language interaction with SQL knowledge sources.
- Implemented an end-to-end pipeline including document ingestion, vector indexing, semantic retrieval, and LLM-powered response generation.
- Designed retrieval workflows and prompting strategies to improve response relevance and reduce hallucinations.
- Utilized Python, SQL, FAISS, Hugging Face, and Google Gemini API during MVP development and experimentation.

Power BI Sales Performance Reporting | Analytical Dashboarding

2026

- Designed interactive Power BI reports with DAX measures, drillthrough, bookmarks, tooltips, and Row-Level Security to support business-facing analytics.
- Translated multi-table data models into decision-ready KPI reporting for sales, category, geography, and time-based performance analysis.

Research & Conferences

International Conference (ICADA)

Apr 2026

Accepted Paper & Conference Presenter

Online

- Co-authored a research paper in applied AI and data-driven systems accepted at an international conference.
- Presented research findings focusing on real-world applicability, model reliability, and system-level insights.

Education

Riga Technical University

Riga, Latvia

Bachelor of Engineering Science in Computer Systems

Feb 2022 – Jun 2025

Certifications

SAP Certified Associate – Implementation Consultant

SAP Certified – SAP Generative AI Developer

IELTS Academic – Overall Band 7.5 (CEFR C1)

SQL (Intermediate) – HackerRank