Nikhil Racha

560 West 43rd Street, NY 10036 | (248) 982-0656 | nikhil.racha@gmail.com | US Citizen – No visa required

GCP Data Engineer with experience in real-time and batch pipelines, complex SQL transformations, and data quality. Skilled in BigQuery, Looker, and Airflow, managing structured and unstructured data at scale.

PROFESSIONAL EXPERIENCE

TruVs: Data Engineer | March 2025 – Present | Remote

Client ETL & BI Dashboards

Met 99.9% SLA by building automated ingestion pipelines for unstructured compliance data and reduced weekly report prep from 8 hours to under 1.5 hours with dashboarding

- Partnered with client teams to define schema mappings and validation checks, improving data accuracy.
- Built PowerBI dashboards that replaced Excel-based workflows, enabling real-time compliance monitoring and cutting down audit back-and-forth by 60%.

Ford Motor Company: Data, SWE Engineer |Feb 2022 – Jan 2025 | Dearborn MI & Remote

Predictive Analysis: Oil-Life Health Data

Saved ~$3M annually by cutting unnecessary oil service visits by 12%, helping Ford reduce vehicle wear and optimize customer maintenance schedules.

- Improved understanding of customer oil-change behavior by calculating oil degradation from vehicle telemetry.
- Built an Airflow ETL pipeline processing 10M+ daily events (engine temp, mileage) from DataFlow to BigQuery, replacing static schedules with personalized oil-life scores.
- Developed a validation DAG to detect data drift under 1%, safeguarding predictive model accuracy and preventing ~$200K in annual errors.

Data Democratization: Connected Vehicle Data Products

Reduced deployment failure detection time by 30%, increasing engineering agility and cutting support tickets by 25%.

- Enabled quicker incident resolution through real-time component health tracking (battery, brakes, cooling systems).
- Migrated backend from PostgreSQL to BigQuery and built a responsive React UI with GraphQL queries, improving dashboard adoption by 40%.
- Tuned performance with alerting and query optimizations, achieving sub-2s load times for field engineers.

Data Insights: OTA Update Desirability Analytics

Prevented $200K in potential recall costs and improved update completion rates from 88% to 96% by uncovering rollout inefficiencies.

- Enabled smarter update timing by analyzing regional and fleet-based adoption patterns across millions of CAN bus and telemetry records.
- Built pipelines in BigQuery to clean and process telemetry and developed Looker dashboards for product/finance stakeholders.
- Identified high-engagement windows, driving a 10% lift in customer opt-in (from ~45% to ~55%) and an 8% increase in successful update completions (from ~88% to ~96%).

KEY SKILLS

Data Engineering: ETL/ELT, Airflow, dbt, Apache Kafka
Cloud & Databases: BigQuery, Cloud Storage, Snowflake, PostgreSQL
Programming: Python, SQL, Shell scripting
Analytics & BI: Looker, Tableau, PowerBI; KPI framework design

PROJECTS

- IoT-Driven Fire Monitoring and Analytics (Inspired by LA Wildfires): Developed a real-time data pipeline simulating IoT sensors streaming structured data to Kafka, focusing on anomaly detection and predictive modeling

EDUCATION

Case Western Reserve University | Case Western School of Engineering **Graduation: Dec 2022**

B.S. in Computer Science, Significant Coursework in Data Science, Artificial Intelligence & Bioinformatics

- Winner of the 2022 Greenfield Labs Summer Intern Hackathon – *Ford Motor*
- University Scholarship (Academic Merit) + Dean's High Honors - *Case Western Reserve University*