

Viraj Kumar Singh

Data Engineer | Cloud Data Platforms | Forecasting & Analytics

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🌐 **Portfolio:** de.flutteradda.com

SUMMARY

Data Engineer with **3+ years of experience** designing and operating production data platforms across **Python, SQL, BigQuery, AWS, GCP, and Frappe/ERPNext**. Built end-to-end systems for incremental ingestion, transformation, forecast evaluation, cloud-native inference, observability, and API delivery. Experienced translating ERP and transactional data into **reliable forecasts and decision-ready analytics products**.

TECHNICAL SKILLS

Languages: Python, SQL, JavaScript **Cloud & Data:** BigQuery, BigQuery AI, FORECAST, AWS S3, AWS Lambda, GCP Compute Engine, BigQuery DTS, MongoDB

Data Engineering: ETL/ELT, Incremental & Idempotent Pipelines, Data Validation, Atomic Staging, Transformation, Aggregation, Orchestration, REST APIs, GraphQL

Forecasting & Analytics: TimesFM 2.5, AutoGluon, DeepAR, TFT, ARIMA/SARIMA, AutoETS, Moirai, Backtesting, MAE, RMSE, WAPE, Forecast Bias, Statistical Analysis

Platforms & Tools: Frappe/ERPNext, Frappe Background Jobs, Docker, Git, CI/CD, n8n, Workflow Automation

WORK EXPERIENCE

Ambibuzz Technologies LLP, Mumbai

Oct 2022 – Present

Data Engineer / Software Engineer – Data Platform

- Built and evolved a **Frappe/ERPNext forecasting platform** that controls ingestion, preprocessing, model execution, storage, and export across ERPNext, CSV uploads, **AWS S3, Google BigQuery, and GCP**.
- Engineered **idempotent S3-to-BigQuery ingestion** with source-metadata tracking, chunked CSV processing, configurable column mappings, validation, temporary staging tables, atomic commits, automatic retries, and edited-file reprocessing.
- Designed a **BigQuery-native TimesFM 2.5 pipeline** covering daily aggregation, zero-filled time-series continuity, feature statistics, Pareto classification, a 60-day holdout, weekly backtesting, multi-metric evaluation, and production forecast generation.
- Implemented **on-demand AutoGluon training on ephemeral GCP VMs**; generated startup scripts dynamically, configured statistical/deep-learning models and quantiles, persisted forecasts to S3, and self-terminated compute after completion to control cost.
- Productionized long-running workflows using **Frappe background queues, cache locks, centralized logs, retries, and cleanup**; built REST APIs delivering processed and forecasted data to web, mobile, and AI systems.
- Contributed to a three-mode **Business Analytics platform** for Operations, Finance, and P&L, integrating ERPNext transactions into KPI engines, risk signals, drilldowns, and actionable Problem–Impact–Action recommendations.
- Built **n8n automation workflows** for content generation and market analysis; maintained CI/CD workflows and production deployments for backend and data services.

Geeksynergy Technologies, Bangalore

Apr 2022 – Sep 2022

Flutter Application Developer

- Developed and maintained production mobile applications with **REST API integrations**, authentication, and backend data synchronization.
- Collaborated with backend teams on API-driven systems, data exchange, debugging, version control, and production releases.

PROJECTS

Forecasting Data Platform

[\[View Case Study\]](#)

Frappe/ERPNext, Python, BigQuery, AWS S3, GCP, AutoGluon, TimesFM 2.5

- Delivered a configurable control plane for multi-source ETL, probabilistic forecasting, model evaluation, anomaly monitoring, exports, and real-time pipeline logs.
- Cost-modeled the BigQuery-native workflow at approximately **\$0.50–\$1.70 per weekly run** for the documented workload of about 2,215 products / 125M observations (pricing and forecast-horizon dependent).

Business Analytics Platform

[\[View Case Study\]](#)

Frappe/ERPNext, Python, SQL, REST APIs, JavaScript, SVG

- Developed analytics workflows across ERPNext sales, procurement, inventory, fulfillment, payments, and GL data for operational, financial, and P&L monitoring.
- Implemented transparent KPI formulas, health thresholds, supplier/customer risk scoring, drilldown panels, aging analysis, cash-conversion metrics, and P&L anomaly insights.

EDUCATION

University of Mumbai

Jul 2020 – May 2023

Bachelor of Engineering in Computer Engineering

CGPA: 8/10