

# UNARINE TIMOTHY TSHIMAUSWU

## Senior Data Analyst

Gauteng, South Africa | 082 580 4035 | [timothytshimauswu@gmail.com](mailto:timothytshimauswu@gmail.com) | LinkedIn: [utshimauswu](https://www.linkedin.com/in/utshimauswu) | Portfolio: [TimothyTshimauswu](https://timothytshimauswu.com)

### PROFESSIONAL SUMMARY

Data Scientist with five years of experience delivering analytics and machine-learning solutions that support commercial, financial, and operational decision-making. Proven ability to translate complex business questions into predictive models, decision frameworks, and executive-ready insights. Experienced across the full analytics lifecycle, from problem framing and feature engineering to model deployment and stakeholder communication. Contributed to R83M+ in quantified business impact across financial services, industrial operations, and consulting environments.

### CORE CAPABILITIES

**Decision & Commercial Analytics:** Customer retention, portfolio performance, risk indicators, cost leakage analysis, pricing, and optimisation support

**Programming & Analytics:** Python, SQL, R, Power BI (DAX), Tableau, Advanced Excel

**Data Engineering & Cloud:** Azure Data Factory, SQL Server, Databricks, AWS (EC2, S3), Docker, ETL pipelines, FAST API

**Stakeholder & Decision Support:** Executive reporting, model interpretation, business translation, cross-functional collaboration

### PROFESSIONAL EXPERIENCE

#### Data Science Consultant

Ruach Consulting Solutions (Consulting for NGO Client)

*December 2024 – Present*

- Deliver end-to-end data science and analytics engagements, translating customer, financial, and operational questions into predictive models, BI systems, and decision-ready insights.
- Design and implement production-grade SQL data models and Power BI reporting pipelines processing 50,000+ monthly transactions, improving transparency and audit readiness.
- Automate management and donor reporting workflows, reducing reporting effort from 40 hours to 20 hours per month and accelerating decision cycles.
- Perform variance and anomaly analysis across R4.5M expenditure portfolios, identifying R150K in projected annual savings.
- Partner directly with finance, compliance, and leadership stakeholders to support governance, regulatory reporting, and executive decision-making.

#### Process Engineer (Applied Operations Data Scientist)

ArcelorMittal South Africa,

*March 2022 – November 2024*

- Acted as the analytics bridge between operations, finance, and management, translating performance and cost questions into data-backed insights.
- Designed Azure-based ETL pipelines processing 250,000+ monthly records across a 504,000-tonne/year operation, improving data reliability and accessibility.
- Built Python- and SQL-based analytical models to support performance monitoring, root-cause analysis, and decision support.
- Analysed 80,000+ operational events, identifying structural inefficiencies that improved throughput by 8%, reduced downtime by 5%, and delivered R38M in operating profit.

- Conducted time-series and anomaly analysis on five years of customer complaint data, informing targeted interventions and preserving a R30M+ customer account.
- Developed regression-based energy optimisation models for a 1.8M-tonne/year plant, delivering R15M in annual cost savings.

### **Graduate Engineer (Analytics & Process Control)**

ArcelorMittal South Africa

*March 2020 – February 2022*

- Applied statistical analysis to 50,000+ equipment and process records, improving stability and control across critical processes.
- Delivered R15M in mechanical-loss savings through structured data analysis and performance monitoring.
- Designed an end-to-end defect and quality analytics framework using SQL and Excel, reducing end-product defects by 10%.

## **SELECTED ANALYTICS PROJECTS**

### **Credit Default Risk Analytics Platform | Portfolio Project | [GitHub](#)**

*Python, SQL, SAS, XGBoost, FastAPI, Streamlit, AWS*

- Built a production-ready credit risk scoring platform analysing 1M+ loan applications, translating borrower behaviour into default risk indicators.
- Engineered 45 predictive features and achieved 87% precision and 82% recall, balancing predictive power with business interpretability.
- Deployed a containerised FastAPI scoring service on AWS EC2, projecting a 15% reduction in bad debt through improved decision support.

### **Production Analytics & Azure Data Pipeline | Industrial Case Study | [GitHub](#)**

*Python, Azure Data Factory, SQL Server, Power BI*

- Designed scalable ETL pipelines processing 250,000+ monthly records to support performance and cost analytics.
- Delivered decision insights through bottleneck and Pareto analysis, contributing R38M in operating profit and a 5% capacity increase.

### **Customer Segmentation & Campaign Optimisation | Portfolio Project | [GitHub](#)**

*Python, Pandas, Scikit-learn*

- Conducted behavioural segmentation on 1,843 customers using transactional and engagement features.
- Identified 8.8x variance in campaign response rates across segments.
- Proposed targeted engagement strategies projecting 3.4x campaign acceptance improvement and 71% cost reduction.

### **Call Centre Performance & Operational Analytics | Portfolio Project | [Tableau Public](#)**

*SQL, Tableau, Excel*

- Analysed 5,000+ call centre interactions across eight operational KPIs.
- Built interactive dashboards enabling time-based and agent-level performance monitoring.
- Identified staffing and efficiency gaps supporting R1.5M in projected annual savings.

## **EDUCATION**

**Postgraduate Diploma in Data Science (Cum Laude)** | University of the Witwatersrand, 2025

**BEng (Hons) Industrial & Systems Engineering** | University of Pretoria, 2023

**BEng Metallurgical Engineering** | University of Pretoria, 2019

*References: available upon request*