

## Sinhle Mkhabela

Midrand, South Africa

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Passionate about data and analytics, with experience in Python, SQL, and cloud platforms. I focus in designing data pipelines and scalable infrastructure that deliver data driven insights and decision-making

## Education

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### Bachelor of Computer Science - Eduvos

Jan 2023 - Present (Final Year)

**Relevant modules:** Database Systems, Data Structures & Algorithms, Operating Systems, Distributed Systems (Java), Discrete Mathematics

## Projects

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### Tailtrade- Fullstack E-Commerce Marketplace

[Live App](#) | [GitHub Repository](#)

- Built a customer-to-customer platform using React.js and Tailwind and PHP/MySQL (backend).
- Hosted on AWS EC2 with a configured Linux server, Apache and custom configuration.
- Designed database schema, implementing listing creation, user authentication and reporting.
- Handles CORS issue, tested and debugged CRUD operations, documented deployment process.

### FNB Fraud Detection – Data Pipeline & Fraud Analytics system

[GitHub Repository](#)

- Built an end-to-end fraud detection system simulating transactional data based on a South African bank using synthetic data generation to model realistic user and transaction behavior.
- Engineered rule-based fraud detection logic in Python (Pandas NumPy) to flag anomalies based on frequency, amount, and geolocation.
- Designed robust ETL pipelines to clean, transform and load PostgreSQL, for storage and analytics
- Developed a FastAPI backend to expose analytics via REST APIs, enabling frontend. visualization of user risk scores and fraud patterns. Displaying analytical experience.
- Created a responsive React.js frontend to display real-time fraud metrics and user profiles.

### GitHub Activity Tracker – Data Dashboard

[GitHub Repository](#)

- Built a GitHub activity tracker with a Python Flask backend using GitHub REST API and Pandas for efficient data ingestion and transformation of contribution data.
- Data fetching is triggered via a button to provide real-time GitHub metric updates including commits, forks, branches, language distribution and stars.
- Visualization using React.js, Tailwind CSS and recharts to view metrics.
- Delivers meaningful insights by consolidating cluttered GitHub data into a clean unified dashboard, allowing me to track and monitor my GitHub activity and work patterns.

## Skills

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- **Languages:** Python, SQL, Bash, JavaScript
- **Data:** Pandas, NumPy, Apache Kafka (beginner), PostgreSQL, MYSQL
- **Cloud/DevOps:** AWS (EC2, S3, Lambda, RDS, IAM, CloudWatch), GitHub Actions, Linux CLI
- **Tool & Frameworks:** FastAPI, Flask, React.js, Tailwind CSS, REST APIs, Git, Excel
- **Soft Skills:** Problem Solving, Communication, Analytical Thinking, Collaborating, Logical

## Certificates

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- AWS Certified Cloud Practitioner Essentials – Coursera (2025)
- Meta Programming with JavaScript – Coursera (2025)
- IBM Data Engineering Professional Certificate - Coursera (In progress)