BOIKHUTSO MASHIGO
JUNIOR SOFTWARE ENGINEER

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Portfolio: https://boikhutso-mashigo.netlify.app/

PROFESSIONAL SUMMARY

Performance driven Software Engineer with a specialization in Data Engineering and full-stack development. Proven track record of building deployed applications using Python and Java, and optimizing legacy systems for scalability. Skilled in designing database schemas, implementing CI/CD pipelines, and solving complex business problems with clean, testable code. Seeking a Junior Software Engineer or Internship role to contribute to scalable software solutions.

TECHNICAL SKILLS

- **Programming Languages:** Python(HackerRank certified), Java(HackerRank certified), SQL(Advanced), JavaScript(basics).
- **Web development:** HTML5, CSS3, Responsive Design, Single Page Applications (SPA).
- **Tools and Frameworks:** Maven, Git/GitHub, GitLab, JUnit 5, Unittest, Linux(Ubuntu), FastAPI, Docker.
- **Architecture & Design:** Systems Analysis and Design, Client/Server Architecture, Database Design and Manipulation, RESTful APIs, ETL Processes, JDBC, DAO Pattern.
- **Methodologies:** Agile**,** CI/CD, CodeScene (Behavioral Code Analysis), Test-Driven Development (TDD**).**

SOFTWARE ENGINEERING PROJECTS

Food Delivery Management System | Java, SQLite, Maven, JUnit Full-Lifecycle Backend System | 2025

- **Architecture**: Implemented the Data Access Object (DAO) pattern using raw JDBC to decouple business logic from database persistence, ensuring high modularity and maintainability.
- **Security & Logic**: Designed a Role-Based Access Control (RBAC) system to enforce strict separation between Customer (Ordering) and Admin (Inventory/Staff) interfaces.
- **Reliability:** Integrated JUnit 5 and Mockito for unit testing, verifying core business logic (pricing calculations and order status transitions) to prevent regression bugs.
- **Data Integrity**: Structured a normalized SQLite database schema with foreign key constraints to ensure data consistency across orders, drivers, and menu items.

WeThinkCode_ Brownfields Legacy Optimization | Java, SQL | 2025

- **Collaborated** in an Agile team to refactor a complex legacy Java application, focusing on maintainability and system performance.
- **Analysis**: Integrated CodeScene to identify "hotspots" of technical debt, using data-driven insights to prioritize refactoring efforts effectively.
- **Quality Assurance**: Implemented Test-Driven Development (TDD) practices, increasing code coverage and ensuring system stability during the refactoring process.

EDUCATION

Occupational Certificate: Software Engineer (NQF Level 6) WeThinkCode_, Johannesburg |
Sep 2024 – Dec 2025

- Major Specialization: Data Engineering

National Senior Certificate (NQF Level 4) | Dec 2021
Motshegoa Secondary School

- Bachelor's Degree Pass

Certifications: Java & Python Basic (HackerRank), Cloud Computing Fundamentals (IBM), Google Agile Essentials (Coursera), GenAI (WeThinkCode_), Working in a Digital World: Professional Skills (IBM).