Lebogang Mabaso

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SUMMARY

I am a motivated Software Engineering student at WeThinkCode_ with a strong academic record (89.9%) and expertise in Java, Python, and backend development. My training combines both theoretical foundations and practical application, giving me 2 years of hands-on experience building REST APIs, implementing Test-Driven Development, and working with DevOps tools including Docker and Git. I have successfully designed and implemented complex systems through projects such as scalable multiplayer simulations, real-time socket communication, and JSON-based protocols. I am skilled in problem-solving, critical thinking, and process optimization, and I collaborate effectively in Agile environments with strong communication and teamwork abilities. I am known for adaptability, attention to detail, and a growth mindset, I am passionate about creating innovative software solutions and continuously expanding my technical knowledge.

SKILLS

Java • Python • SQL • HTML • CSS • JSON • REST APIs • Object-Relational Mapping (ORM) • Application Programming Interfaces (API) • Socket Programming • Problem-Solving & Analytical Thinking • System Integration • Communication (verbal & written) • Teamwork & Collaboration • Critical Thinking & Decision-Making • Adaptability & Continuous Learning • Time Management & Organization

PROJECT (PRACTICAL) EXPERIENCE

ROBOT WORLD SIMULATION- Java / Socket Programming / JSON / Database
Feb 2025 - Aug 2025

- Built a multiplayer robot simulation with server-client architecture handling real-time commands.
- Designed and managed structured world and robot state data, including positions, health, and obstacles, using efficient in-memory data structures.
- Implemented JSON-based communication protocols for seamless data transfer between clients and server.
- Developed persistent storage mechanisms to save and restore game state, demonstrating database management skills.
- Wrote unit and acceptance tests to validate data integrity, command handling, and state consistency.

Peer Skill Exchange Board - Python / SQLite / OOP / Data Processing
Jan 2025 - Feb 2025

- Built a platform to match users for peer skill exchange using Python and OOP design patterns.
- Designed database schemas for users, skills offered/needed, and match records; implemented full CRUD operations.
- Developed matchmaking algorithms that analyzed user skill data and calculated optimal pairings.
- Conducted data validation and integrity checks; wrote unit tests to ensure accuracy.
- Dockerized the application to ensure reproducibility and deployment consistency.

Resume Gap Filler - Python / SQLite / Recommendation System / Data Analysis

Jul 2025 - Aug 2025

- Developed a project recommendation system to suggest projects based on user skills and available time.
- Created relational database structure to store users, project ideas, and recommendation results.
- Implemented scoring and ranking algorithms for recommendations, demonstrating logic for data processing and analysis.
- Wrote unit and acceptance tests to validate recommendation accuracy and database integrity.
- Dockerized the system for portability and consistent deployment across environments.

WORK EXPERIENCE

Brahman Hills Weddings, Events, Hotel & Spa | Administrative Clerk

Feb 2022 - Aug 2024

- Managed executive calendars, digital filing, and business documentation with high accuracy.
- Created and processed invoices using Xero and handled point-of-sale operations via Micros.
- Coordinated travel, procurement, and onboarding logistics, demonstrating organizational and process management skills.
- Supported project execution through research, reporting, and data management, strengthening analytical and problem-solving abilities.

Estcourt Primary School | Teacher Assistant

Dec 2020 – Apr 2021

- Assisted in lesson preparation, student data management, and classroom organization.
- Provided technical support in computer labs, including troubleshooting software and hardware issues.
- Developed skills in data handling, technical troubleshooting, and workflow optimization, transferable to software development and IT roles.

EDUCATION

WeThinkCode_

Software Engineering (NQF Level 6)

Sep 2024 - Dec 2025

Advanced Java and Python programming with emphasis on enterprise-level applications
Test-Driven Development using JUnit and unittest frameworks

Data Structures, Algorithms, and Object-Oriented Programming
Socket programming and JSON communication protocols
REST API development and system integration

Docker containerization and DevOps practices

Agile development methodologies and collaborative project management

University of South Africa (UNISA)

Bachelor of Science (Mathematics and Computer Science)
Jan 2023 - In progress

Key Courses: Discrete Mathematics, Introduction to Programming (C++),
Computer Systems, Algorithm Design and Analysis, Linear Algebra

University of KwaZulu-Natal

Bachelor of Social Science (Psychology and Political Science)
Jan 2017 - Dec 2020

Research methodology and data analysis
Critical thinking and ethical decision-making

Advanced communication and interpersonal skills

Ladysmith High School

Matric with Bachelor's Pass

HONORS & AWARDS

Innovation Challenge 2025 Hackathon - 2nd Place Winner BabesGotBytes NPC & Deloitte

BabesGotBytes NPC & Deloitte

Secured 2nd place out of competitive field in tech innovation hackathon. Led collaborative team of 4 developers to deliver winning solution under tight deadline. Demonstrated exceptional problem-solving and rapid prototyping skills. Recognized for technical excellence and innovative approach to real-world challenges. Worked with industry mentors and presented to panel of expert judges.

REFERENCES

- Mrs. LA Shembe – QA Manager | Phone: 072 595 8247

- Mr. FA Madondo – Campus Manager | Phone: 063 098 9349

- Mrs. FG Tayiya – Educator | Phone: 073 652 5964