

Lutho Mgolombane

Software Developer | AI Associate

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SUMMARY

I didn't begin my career in tech, but once I stepped into software development, I knew I'd found the right fit. It gave me the perfect blend of creativity, problem-solving, and continuous learning, and that's what keeps me motivated every day.

What truly drives me is building technology that matters. Lately, I've been especially interested in artificial intelligence and cloud technologies not just for their innovation, but for how they can simplify tasks, solve real problems, and improve everyday experiences.

SKILLS

- **Languages:** Java, Python, JavaScript
- **Technologies:** AWS, Docker, REST APIs, SQLite, HTML, CSS
- **Tools:** Git, VS Code, IntelliJ, Linux
- **Specialties:** Brownfields, Greenfields, TDD
- **Testing Frameworks:** JUnit, PyTest, Selenium, Unit test
- **Soft Skills:** Problem-Solving, Collaboration, Adaptability

PROJECT & EXPERIENCE

Robot Worlds Project (WeThinkCode_)

- **Context:** A greenfields project to develop a client-server Robot World system, working iteratively in agile sprints. This project applies OOP principles, including inheritance, composition, and polymorphism, to create a world where robots interact with obstacles and each other. The project involves implementing network programming, concurrency, and application protocols, providing hands-on experience with Java sockets and JSON serialisation.
- **Contribution:** Designed and implemented the client-server architecture, integrated Web APIs, and improved database persistence.
- **Impact:** Enhanced scalability, modernized the tech stack.

ACHIEVEMENT

AWS DeepRacer Hackathon (Top 10 Finalist)

- **Context:** Competed in a machine learning-based autonomous racing challenge.
- **Contribution:** Trained reinforcement learning models to optimize racing performance.
- **Impact:** Achieved a top 10 placement, demonstrating strong problem-solving and AI skills.

BabesGotBytes Hackathon (Top 3 Finalist) - 2024

- **Context:** Participated in a 24-hour hackathon focused on integrating AI with TYPO3 CMS to tackle local challenges.
- **Contribution:** Collaborated with a team to develop an AI-driven solution aimed at enhancing digital literacy in underserved communities.
- **Impact:** Achieved a top 3 finalist position among numerous teams, demonstrating innovation and technical proficiency.

EDUCATION

WeThinkCode, Cape Town - *Information Technology (Systems Development) NQF 5*

SEPTEMBER 2023 - DECEMBER 2024

MSC Business College, Cape Town - *Marketing Management Diploma*

FEBRUARY 2018 - NOVEMBER 2020