

Ayanda Khumalo

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PERSONAL SUMMARY

Motivated final-year Software Engineering student with prior college training in Systems and Network Support, as well as Microsoft Systems and Security Associate. Seeking a graduate-level opportunity where I can apply my existing technical and analytical skills, contribute meaningfully to a dynamic team, and continue growing within a supportive and impact-driven organization.

EDUCATION

WeThinkCode

Diploma in Software engineering

Johannesburg, Gauteng

Sept. 2024 – Dec 2025

Newbridge Graduate Institute

CompTIA Systems and Network Support

Durban, KwaZulu Natal

Feb 2023 – Dec 2023

Microsoft365 Expert and Security Associate

Feb 2024 – Dec 2024

EXPERIENCE

CompTIA Systems and Network Support Tutor

2024

Self-employed

Durban, KwaZulu Natal

- Mentored 3 first-year students weekly, boosting pass rates
- Put together interactive materials on TCP/IP, OSI Model, and routing
- Provided tailored troubleshooting support and guidance, increasing course completion
- Collaborated with peers to develop resources that reduced frustration by about 20%

Frontliner

Execuspeccs

May 2023 - October 2023

Durban, KwaZulu Natal

- Scheduled customer appointments and managed high-volume calls with efficiency.
- Guided customers in selecting frames and lenses tailored to their needs
- Secured consistent sales of eyewear and accessories through personalized service
- Maintained smooth front-of-house operations and elevated customer satisfaction

Check-in Volunteer

June 2024

Comrades Marathon Registry

Durban, KwaZulu Natal

- Registered 2,000+ runners within 60-second targets during peak hours.
- Coordinated with 20 volunteers to ensure smooth, delay-free check-ins
- Maintained accuracy and energy across 12-hour+ shifts
- Supported flawless execution of South Africa's largest ultra marathon

HACKATHON EXPERIENCE

Microsoft AI Skills Challenge Hackathon

Virtual 2024

Participant

Johannesburg, Gauteng

- Collaborated in a 3-person team to build an AI-powered study buddy for personalized learning
- Designed tutoring logic to identify weak topics and reinforce understanding through flashcards and quizzes
- Applied ethical AI principles to support inclusive, accessible education for social good

Mukuru SheHacks Hackathon

Physical 2024

Participant

Johannesburg, Gauteng

- Co-designed a loyalty rewards platform for Mukuru customers, focused on milestone tracking and redeemable benefits
- Architected backend logic with my team for secure transaction history and modular reward components using Django and SQL
- Led UI/UX prototyping in Figma, mapping user journeys and designing scalable, empathy-driven interfaces
- Collaborated in a cross-functional team to deliver a working MVP under 48-hour constraints

PROJECTS

Robot Worlds | *Java, Maven, SQLite, Docker, CI/CD, ORM*

- * Built a client-server simulation in a group of 4 where robots interact via a JSON protocol, with an added HTTP Web API layer for external access.
- * Implemented an extensible command framework (forward, look, state, repair) and integrated SQLite persistence with SAVE/RESTORE commands.
- * Applied OOP principles and separation of concerns, designing single-responsibility classes and a modular architecture.
- * Automated builds and tests with Maven, Makefile, and shell scripts; containerized with Docker and deployed via a CI/CD pipeline.

DishWhiz – AI-Powered Recipe Generator(In progress) | *Python, SheCodes AI API, CLI, HTML, CSS, Javascript*

- * Built a command-line tool that generates recipes based on user-provided ingredients and cuisine preferences
- * Integrated Google SheCodes AI API for dynamic recipe creation, supporting multiple recipe types
- * Designed modular, extensible code for future GUI or web app integration
- * Implemented error handling and input validation for a robust user experience

TECHNICAL SKILLS

Languages: Java, Python, JavaScript, HTML5, CSS3, SQL (SQLite)

Databases & Backend: MongoDB, SQLite, JDBC, REST APIs

DevOps & Tools: Docker, CI/CD Pipelines, Git, GitHub, Netlify, VS Code, Linux, IntelliJ

Testing & Frameworks: pytest, JUnit, Test-driven Development, Behavior-driven development

Socket Programming & Data: Socket Programming, JSON Data Serialization

Cloud & Network Engineering: OSI Model, TCP/IP, Router Configuration, IP Addressing & Subnetting, Microsoft 365 Administration, Cloud Concepts, Troubleshooting & Support

Certifications: CompTIA A+ Core 1, CS50 Programming in Python, IPL UI/UX Design fundamentals