NQOBILE NKIWANE

Software Engineer

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SUMMARY

BScInformation Technology graduate specializing in Computer Science and Informatics led the development of a ater system for a real world client including a website database and mobile app Skilled in mobile app development and API design with a passion for solving business challenges through technology

EDUCATION

Bachelor of Science in Information Technology, *University of Johannesburg*

Monkey and River Hackathon 🔗

- Led backend development of an AI powered mobile health monitoring system that measures heart rate and blood oxygen levels via smartphone camera using PPG technology
- Integrated Azure Cognitive Services (Translator, Speech) to enable multilingual voice interactions in Zulu and English
- Connected to a Spring Boot PPG microservice for live biometric readings, and created a mock PPG service for rapid prototyping and offline testing
- Implemented health query logic to interpret both English and isiZulu voice requests and respond with localised audio feedback
- **Tech stack:** Node.js, Express.js, Azure Cognitive Services, Spring Boot, JavaScript, REST APIs

Certificates

First Place, *Monkey and River* 🔗

Certificate of Participation (Winner) — Recognised for building an isiZulu AI Voice Health Assistant integrating Azure Cognitive Services and PPG biometrics

ADDITIONAL INFORMATION

Technical Skills

Mobile App Development (Kotlin, Java), API Development (FastAPI), Web Development (HTML, CSS, JavaScript), Database Management (PostgreSQL)

Languages

English, IsiZulu