

Luthando Mbuyane

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GitHub: github.com/nonluthando | Portfolio: nonluthando.github.io | ScoreRent: <https://scorerent.onrender.com>

SUMMARY

Computer Science graduate applying for Junior Software Developer / Graduate Software Engineer roles. Strong backend foundation in Python (FastAPI/Flask) and SQL/PostgreSQL, with solid Java OOP fundamentals. Built and deployed backend-focused systems with automated testing (pytest) and CI (GitHub Actions). Committed to writing efficient, maintainable code and continuously improving engineering skills through independent upskilling beyond coursework. Psychology background strengthens documentation, user testing, HCI, and stakeholder communication.

TECHNICAL SKILLS

Python (FastAPI/Flask, pytest), Java (OOP), SQL (MySQL, PostgreSQL), MongoDB/SQLite (basic), REST APIs, Git/GitHub, GitHub Actions (CI), Docker (basic), Linux/CLI, Render, Agile/Scrum, debugging/logging, usability testing, HTML/CSS, JavaScript (basic)

Research/Analytics: user research, usability testing (HCI), survey design, experimental design, A/B testing, hypothesis testing, descriptive statistics, regression basics, data cleaning & analysis (R/Python)

EDUCATION

University of Cape Town (UCT) — Bachelor of Science Computer Science & Psychology (2025)

Coursework: Data Structures & Algorithms, Networking, Databases, HCI, Software Engineering, OOP, Applied Cognitive Neuroscience.

PROJECTS

ScoreRent | Python, FastAPI, PostgreSQL, Docker, pytest, GitHub Actions | 2025-2026

Live Demo: <https://scorerent.onrender.com>

- Built and deployed a rental decision-support web app that scores listings (0–100) and generates recommendations (Apply / Borderline / Not worth it).
- Implemented an explainable scoring engine using affordability thresholds (25/30/35% rent-to-income), document-fit checks, and area weighting.
- Improved reliability by adding automated testing (pytest) and CI (GitHub Actions) to run regressions on every push/PR and prevent scoring logic breakages.
- Dockerised the application and PostgreSQL to ensure reproducible local development and consistent environment setup across machines.
- Deployed the live demo on Render and iterated based on early-user feedback (<10 users) and real rental scenarios.

SeaClear (Capstone / HCI Group Project) | Python, Flask, MongoDB, JavaScript, HTML/CSS | 2024

- Built a full-stack platform (team of 3) surfacing beach water quality information to support safer decisions for Cape Town beachgoers.
- Collaborated using GitHub (branching/merging) and iterative Agile delivery, adapting features to evolving client requirements over 12+ weeks.
- Led HCI workstream: designed usability tasks, recruited 5+ users, conducted testing, and documented actionable findings/UX improvements.

HealthSync (GirlCode Hackathon) — Bubble (No-Code), Product Design | 2023

Live Demo: <https://healthsync-93728.bubbleapps.io/version-test/>

- Co-developed a hackathon prototype aligned to SDG 3 (Good Health & Well-being) focused on improving access to health services.
- Designed product features: clinic queue/ticketing, HerHealth education module, medication delivery, and chat support.

Client-Server Messaging System (NetworkComm) — Python, TCP sockets, Multithreading | 2024

- Built a TCP messaging client supporting concurrent group messaging against a multithreaded server.

- Refactored server-side components and added structured logging to improve debugging and integration testing.

EXPERIENCE & LEADERSHIP

Tutor (Computer Science & Psychology) — Avenue Road Residence (2022–2023)

- Supported 7 core students and assisted 15+ additional students during peak periods.

Events Committee Member — Science Students Council & MyDomain Residence (2023–2025)

- Coordinated event logistics and stakeholder communication (vendors, residence management, student representatives).

AWARDS

Dean's Merit List — University of Cape Town