SIVUYISE MATWA

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PROFILE SUMMARY

Bachelor of Science graduate in Computer Science and Business Computing from the University of Cape Town with experience in machine learning and AI and software development. Skilled in designing and building scalable applications, data analytics, machine learning models, and cloud-based solutions using modern technologies. Proven ability to lead projects, solve complex problems, and contribute to high-impact teams.

EDUCATION

University of Cape Town   Feb 2023 - Dec 2025
- *Bachelor of Science in Computer Science & Business Computing – 69.69% GPA*

AB Phokompe High School   Jan 2022 - Dec 2022
- *National Senior Certificate* - Distinctions in Physical Science, Life Science/Orientation, IsiXhosa

PROJECT EXPERIENCE

Local Cloud Storage Emulator API | 2025

- Built a lightweight, self-hosted file storage platform using Java Spring Boot (MVC architecture) and PostgreSQL, providing RESTful APIs endpoints for file uploads, downloads, deletions, and directory browsing.
- Implemented secure role-based authentication and authorization, with user credentials and permissions stored in PostgreSQL, ensuring future multi-user scalability.
- Enabled local network accessibility, allowing seamless file management (view, upload, delete) from any device on the same LAN.
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FlatShare Community Management Mobile Application | 2025

- Designed and developed a full-stack community management platform enabling resident onboarding, announcements, secure messaging, and listings, built with React Native and TypeScript (frontend) and Node.js (backend).
- Implemented modular MVC architecture with controllers, repositories, services, and Firebase integrations for authentication, Firestore database, secure file storage, and push notifications.
- Designed and documented system artifacts including use case diagrams, class diagrams, package diagrams, and sequence diagrams to demonstrate architectural clarity and maintainability.
- Applied software engineering best practices: structured testing plan, user manual, API documentation, and deployment-ready backend.

AI Content Detector API | 2025

- Designed and developed a backend API for detecting AI-generated content using machine learning, built with python using the FastAPI framework.
- Implemented modular MVC architecture with controllers, services, repositories, and PostgreSQL database integration. Incorporated pre-trained transformer models from Hugging Face for natural language processing and AI content detection.
- Applied software engineering best practices, with unit testing using Pytest, version control with GitHub and Git, agile project management with Trello.

Digitizing Housing Waiting List | 2025
Team lead
- Led a 6-person team in collaboration with an external sponsor to digitize a manual housing application system. Turning requirements into solution.
- Designed and proposed a database-driven solution that reduced data retrieval time by over 100%.
- Improved stakeholder visibility and access through a web-based interface, supporting over ten thousand registered applicants.
- Planned and delivered project milestones using Agile methodology across a 12-week research and development cycle, achieving 100% on-time delivery.

VOLUNTARY WORK AND LEADERSHIP EXPERIENCE

Esther Naledzi Website Maintenance and Development   2025 May – 2025 Dec

The-website

- Maintaining and upgrading the website of a Non-Profit Organization that assists non-funded students with funding.
- Implementing website improvements to enhance user experience and accessibility.
- Collaborating with the NPO team to manage content and assist in digital outreach.
- Ensuring the website remains functional, up-to-date, and aligned with the NPO's mission to support students.

Tutor, Mentor & Academic Representative – Varietas Residence, UCT   Oct 2023 – Oct 2024

- Provided academic support to fellow students through structured tutoring sessions.
- Assisted in improving student performance by organizing study groups and resources.
- As part of House Committee, served as an Academic Representative, bridging the gap between management wardening team and students and organizing academic events.

CERTIFICATIONS & TRAINING

UCT Plus Gold (60 hours in elected leadership) - Recognized for leadership contributions.
ESEFA - Data Storytelling and Visualization competition with SAP Analytics Cloud.
AWS Cloud Practitioner (In Progress) - Exploring cloud fundamentals & AWS services.

TECHNICAL SKILLS

Programming Languages: Python, Java, C#, SQL, R, JavaScript

Frameworks & Tools: Git, Github, SAP, Tableau, React, Spring Boot, .NET, Expo CLI, Power BI, PyTorch

ADDITIONAL INFORMATION

Languages: English, isiXhosa, isiZulu, Setswana
Soft Skills: Problem-solving, teamwork, leadership, adaptability

RELEVANT COURSEWORK

Web & Application Development, Machine Learning and Artificial Intelligence, Database Management, Business Project Management, Advanced Software Development, Data Structures and Algorithms, Networks and Operating Systems

REFERENCES

Available upon request