

Kelvin Yankey

Software Engineer

✉ kelvinyankey6@gmail.com ☎ +27 67 175 2536  LinkedIn  Portfolio

SUMMARY

Mechatronics engineer turned software developer with 3+ years of experience across embedded systems, robotics, and enterprise software. Currently working at Investec building full-stack systems and AI tooling. Comfortable at any layer of the stack.

PROFESSIONAL EXPERIENCE

Investec, Software Developer 01/2024 – Present

- Modernised a business-critical client onboarding and management platform, replacing a legacy Silverlight application with a cloud-hosted Next.js solution under a two-month audit deadline while helping establish the initial Azure setup.
- Played a key role in Investec Wealth & Investment's six-month JSE/BDA migration, modernising the core Client Management platform used daily by 500+ wealth professionals and downstream systems through SQL, API, data model, testing and cutover work.
- Designed and built the enterprise Advisor Management platform as the sole engineer, creating a single source of truth for advisor identity, account access control, advisor-client relationships, and fee and revenue allocation across Wealth & Investment.
- Worked on Ask Henry, Investec's award-winning AI assistant, as part of a four-engineer team, designing RAG-based document understanding and investment intelligence features using Azure OpenAI, Semantic Kernel, Azure AI Search and Cosmos DB.
- Enabled wealth managers to query internal documentation, client fund holdings and structured products in natural language using the same internal APIs that power Investec's frontend applications.
- Supported high-value payment, transaction and quarterly fee processing systems, including deposit flows and external bank account payments for Wealth & Investment clients.
- Delivered fully automated end-of-day settlement processing with external fund managers, retrofitting existing systems and implementing message-driven workflows for daily investment funding and redemption reconciliation.
- Contributed to modern engineering practices across a five-person team using C#, .NET, SQL Server, Azure, Azure DevOps, Docker, React, Angular and Next.js.

University of Cape Town, Engineering Intern 06/2023 – 07/2023

- Ported the DROID-SLAM project to UCT's HPC environment using Docker and Singularity for GPU-accelerated SLAM.
- Developed a CLI tool to streamline job submission, monitoring, and data extraction on SLURM-managed GPU nodes.
- Automated inference and training pipelines using Linux shell scripts.

Kickback Space Inc., Cloud Engineer 08/2021 – 12/2021

- Built a scalable 3D virtual environment system designed to host near-realistic virtual events without requiring expensive client hardware.
- Gained hands-on experience with 3D rendering technologies and scalable network architecture.

University of Cape Town, Computer Science Tutor 02/2021 – 11/2021

- Mentored students in computer science fundamentals, logic, and problem-solving for CSC1015F and CSC1016S.

- Developed the ability to communicate complex ideas effectively and strengthen interpersonal skills.

PROJECTS

Low-Cost Phasor Measurement Unit 10/2024

A real-time Phasor Measurement Unit built in Rust on a Raspberry Pi, sampling three-phase grid voltages with GPS synchronised timestamps and computing phasors, frequency, and ROCOF — fully compliant with the IEEE C37.118 standard.

Audio Steganography 08/2023

An implementation of audio steganography that hides secret messages inside audio files using a random number generator for bit placement.

DROID-SLAM HPC Port 07/2023

Ported the DROID-SLAM visual-odometry framework to UCT's HPC environment and built a full Go CLI for executing, managing, and extracting inference and training jobs over SSH.

Red-winged Starling Nest Camera 05/2023

A multi-unit surveillance system built to monitor red-winged starling nests across UCT's campus, using Raspberry Pi Zero, environmental sensors, and a Flutter companion app.

Maze Solving Robot 11/2022

A line-following robot programmed to navigate and solve a maze featuring curved paths, right angles, 4-way and 3-way decision points, and dead ends — the fastest of 20 competing teams.

HAT for the STM32 2022

An extension kit for the STM32 Discovery Board designed to add sensors and features with a plug-and-play approach.

COVID-19 Infection Tracker 05/2020

A full-stack data aggregation and visualisation platform tracking real-time COVID-19 statistics globally, with a Python backend and Vue.js frontend.

CERTIFICATIONS

Microsoft Certified: Azure Fundamentals (Microsoft • Apr 2025) | **AWS Certified Cloud Practitioner** (Amazon Web Services • Jan 2022 – Jan 2025)

SKILLS

C# | .NET | TypeScript | Python | SQL | Go | Next.js | React | Dapr | Azure | Docker

EDUCATION

University of Cape Town, 2020 – 2023

B.Eng, Mechatronics, Robotics & Automation Engineering
Dean's Merit List (Dec 2022)

Umtata High School, High School Diploma 2015 – 2019