Marco van Staden

Snr DevOps Lead/ Solutions Architect

Experienced Computer Engineer with a strong foundation in cloud architecture, infrastructure as code, and systems integration. Skilled in leveraging technology to enhance operational efficiency and drive data insights. I excel at creating and maintaining scalable solutions that support both development and business needs. I am passionate about continuous integration, automation, and optimising data-driven processes for more reliable systems engineering.

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SKILLS

- Analytical Thinking
- Critical Thinking
- DevOps
- Automation
- CI/CD
- Problem Solving
- Cloud Architecture
- Networking
- Leadership
- Communication Skills
- Project Management

EDUCATION

BSc (Honours)

The Open University

United Kingdom

Study Field:

- Computing and Electronic Engineering

TECHNICAL SKILLS

Programming Languages	Python (5+ Years), C/C++ (3 Years), Golang (2 Years), Assembly (1 Year), Javascript/TypeScript (3 Years), Rust (1 Year)
Frameworks	React, Flutter, FastAPI, Flask
OS	Linux, MacOs, Virtual Machines, Containerization
IoT Internet of Things	Embedded Systems, Artificial Intelligence, Microcontrollers and Microprocessors, Arduino, PIC, ESP32, Automation
Networking	CCNA, CCNP - TCP, UDP, HTTP Protocols, Routers, Switches and Network Structures and Topologies
Tools	Docker, Kubernetes, Terraform, Grafana, Git, Github, VNC, Putty, Wireshark, VSCode
Databases	MySQL/MariaDB, Postgres, Firestore NOSQL, MongoDB, GCP BigQuery

WORK EXPERIENCE

Software Engineering Manager

Planet Fitness

04/2026 - Present

Senior DevOps Lead

Planet Fitness

2025 - Present

Led stabilization and greenfield re-architecture of a Kubernetes-based consumer platform, delivering serverless scalability, secure CI/CD automation, and AI-augmented development workflows.

Tasks

- Stabilized a high-traffic consumer fitness platform by auditing legacy Kubernetes infrastructure, resolving systemic runtime failures, implementing horizontal scaling (Uvicorn/Gunicorn optimization, node redundancy), and introducing structured observability to eliminate opaque production crashes.
- Led complete system overhaul re-architecture, replacing patch-based legacy systems with a cloud-native serverless design on Cloud Run, prioritizing reliability, elasticity, and infrastructure cost efficiency (scale-to-zero, right-sized compute) using Flutter, FastAPI, Postgres Docker and Asynchronous REST API Calls.
- Engineered capacity planning model for database and backend services (connection pooling, concurrency limits, throughput forecasting) and validated assumptions through custom load and pressure testing.
- Designed and implemented secure CI/CD ecosystem in GitHub and Azure DevOps, including branch governance, RBAC, automated build/test/deploy pipelines, and fully automated mobile releases (iOS App Store, Google Play, Huawei AppGallery) using fastlane.
- Embedded AI across engineering workflows: automated pull request review (security, quality, dependency validation), agent-based code standard enforcement, and internal AI knowledge assistant translating technical artifacts into business-readable outputs.
- Contributed hands-on full-stack development of workouts & nutrition module, implementing scalable backend data models, subscription-based program logic, challenge progression systems, and optimized frontend user experience.

INTERESTS

- IoT (Internet of Things)
- Robotics and Embedded Systems
- FinTech
- Automation
- Biomedical Engineering
- Nature & Hiking
- Microprocessors and Microcontrollers

ACHIEVEMENTS

Participated with great success in various Mathematics, Life Sciences, and Physical Sciences Olympiads

National external exams that allow students to compete with other students on the same education level about the more difficult content of the respective subjects.

Outside of Academia

I excelled at the following: Hockey (3 years first team); Athletics (4 years first team); Choir (5 years part of prestigious Linden choir – won multiple national and international competitions and awards).

HONOR AWARDS

Presidentsverkenner (2016)

Voortrekkers

- This is a prestigious national award that is rewarded to those who exhibited accountability, strong character, and leadership potential.

National and International Choir Competition Awards (2012 - 2016)

Linden Koor

- Won multiple awards over the years, including special recognition at the 2019 World Choir Games.

WORK EXPERIENCE

DevOps Engineer

Draslovka | Blue Cube Technologies

2024 - 2025

Built and secured end-to-end infrastructure across cloud and remote mining sites, implementing VPN networking, automated backups, CI/CD pipelines, and full-stack observability for mission-critical scanning systems.

Tasks

- Designed and deployed secure company-wide VPN infrastructure; configured physical networking hardware and integrated internal systems with centralized secure remote access.
- Implemented automated backup and disaster recovery strategy for source code, databases, and operational data, eliminating single points of failure and introducing data redundancy safeguards.
- Built and maintained CI/CD pipelines for development team; introduced structured project management workflows to improve task distribution, delivery predictability, and engineering throughput.
- Architected full observability stack across virtual machine infrastructure and mining scanning services using Prometheus, Grafana, Loki, Promtail, and Linux-based monitoring scripts; implemented canary monitoring framework for early anomaly detection.
- Provisioned and managed Linux-based VM environments; enforced CISO-aligned security standards, hardened systems, and maintained peer-to-peer distributed storage infrastructure (Syncthing).
- Conducted on-site infrastructure deployments and upgrades in remote mining environments (Tanzania), ensuring stable scanner-device connectivity, improving hardware reliability, and supporting calibration matrix implementation for production-grade scanning systems.
- Completely revamped scanning UI interface to work with a Flask Python Backend and Flutter frontend, accessible from remotely and on device with a secure connection when accessing remotely.

Software Engineer & Solutions Architect

Principle Choice Consultants/ Celbux

2023 - 2024 *Centurion, South Africa*

"Principal's Choice Consulting stands out as a premier IT consultancy firm, specializing in crafting tailored technology solutions that precisely align with the distinctive requirements of various industries.".

Achievements/Tasks

- Leveraged modern cloud infrastructure and cutting-edge systems architecture to drive business innovation and efficiency.
- Developed automated CI/CD pipelines to streamline deployment processes, improving operational efficiency and reducing deployment times by 50%.
- Architected, designed and implemented a Mobile Application in Flutter along with a corresponding backend in Google Cloud to act as 80% of the fucntional operation of an IoT Tech Startup.
- Diverse undertakings for Celbux, a prominent FinTech enterprise, harnessing cloud infrastructure to achieve unparalleled transactional swiftness through collaborations with Google and Deloitte

Business Consultation, Design and Server Hosting

Contracted to several start-up businesses

2021 - Present *Remote*

Achievements/Tasks

- Fully Designed Websites in React, Vue, Next and Wordpress
- Helped clients with critical part of their business thinking
- Local Server Hosting with Dynamic IP Address Workarounds
- Google, AWS and Cloudflare automated deployments and hosting. (Terraform)
- Full Python Backend API using Flask and FastAPI connected to MongoDB and Redis.
- Special Python scripts and website addons for extra functionality
- Deployed and managed web hosting environments across multiple cloud platforms (Google Cloud, AWS, Cloudflare) utilizing automated deployment tools (Terraform, (Ansible)).
- Implemented monitoring and alerting solutions to ensure quick response times

LANGUAGES

English
Full Professional Proficiency

Afrikaans
Native or Bilingual Proficiency

CERTIFICATES

National Senior Certificate (2016)
Six of the seven subjects I received 75%+ of which 3 were above 80%.

Cisco Student Certification (2019)
This University Level Certification aims to teach you everything needed for the Cisco Exams. CCNA, CCNP and CCIE Courses Completed.

Terraform - Infrastructure as Code (2024)
Terraform is a tool for defining and provisioning infrastructure as code (IaC) - to create, manage, and version infrastructure across various cloud providers, ensuring consistency and efficiency in deployments.

WORK EXPERIENCE

Market Research Analyst
Toner Corporation

2021 *Johannesburg, South Africa*

Achievements/Tasks

- Designed and implemented automated analysis of price competitiveness across the company's product range.
- Leveraged SQl and Python for web scraping to gather website content, enhancing the company's competitiveness through data insights

PERSONAL PROJECTS

Automated Covid-19 Statistics (03/2020 - 03/2021)

- I developed a script to streamline the extraction of Coronavirus statistical data from the web. This script processes the data, including generating 3-day and 7-day moving averages, projecting future trends, and visualising the information through graphs. These graphs are automatically dispatched to my inbox daily, and they are accessible to the general public through a Telegram bot named R0nabot.

Local Linux Webserver Hosting Personal Website (01/2021 - Present)

- I established a Linux-based web server powered by Apache, MySQL, and PHP, serving as the foundational backend infrastructure. This web server system is set up to autonomously update DNS configurations and IP addresses, resulting in a fully dynamic and adaptable framework. This versatile system not only hosts my personal website but also houses the COVID Automated Statistics platform and various other home automation solutions.

Colour Sensing Line Follower Car with Touch Screen GUI (06/2020)

- This project endeavours to construct a miniature vehicle, even smaller than a shoebox, integrating analogue circuitry that facilitates colour detection underneath it. Positioned on a 'racetrack' adorned with diverse coloured lines, the vehicle is expected to precisely trace the chosen colour path while disregarding others. The primary objective of this endeavour is to determine the fastest completion time for the race. The undertaking further encompasses the creation of a self-designed graphical user interface (GUI) for controlling the vehicle and its assorted settings. Notably, it incorporates an audio Fast Fourier Transform (FFT) feature engineered to recognise warning signals and promptly halt the vehicle's internal combustion engine (ICE).