

Callum van Heerden

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Work Experience

Verishare Software (Junior Software Developer)

2021/05 – present

- **Telegram Chatbot:** I built a Telegram chatbot from scratch to production for debtors to be able to see their accounts, pay their balance using PayAt, create repayment plans and create debit orders, all without talking to anybody. (Almost 400 users)
 - Java, Spring Boot
 - Spring Statemachine
 - rubenlagus/TelegramBots library
 - SQL Server and Stored Procedures for Statemachine session persistence and logging
 - Event-driven model
 - Excel report generator for observability
 - E2E testing for the user flow
 - Reactive streams with Spring Reactive, WebFlux, Mono, used with Spring Statemachine and the Telegram library
 - Built a PlantUML chart exporter for the Statemachine diagram
- **PayAt API integration:** I worked on upgrading a legacy SOAP integration with PayAt to their new REST API using Spring Boot
- **VeriCred Credit Bureau (VCCB) API integration**
- **Database as code**
- **Go-clockify**
- **VeriNet scripts using powershell**

Education

Benoni High School

2013 – 2017

Matric NSC - Studied IT from Grade 10 - 12

UNISA (part-time)

- *Diploma in Information Technology (discontinued to transition to BSc Computing)* 2020 – 2022
- *Higher Certificate in Mathematics and Statistics (one module left) (working towards BSc Computing)* 2020 – 2022
- *Bachelor of Science in Computing (not started yet)* 2024 –

Projects

- **Homelab - callumvh.com:** This is an overkill home infrastructure for learning about DevOps/GitOps concepts, I use the following technologies:
 - **Kubernetes** (K3S distro)
 - **Cloudflare tunnels** and **Traefik** as a reverse tunnel/proxy (to expose services to the internet)
 - **Flux CD** which is a “GitOps style” toolkit for Kubernetes deployments
 - **GitHub Actions** & Flux CD allow for a smooth CI/CD pipeline where the containers automatically get built and pushed to my container registry, flux cd automatically updates the kubernetes cluster by changing the version in the source code via a bot.
 - I also have private services running on subdomains such as service1.callumvh.com, service2.callumvh.com etc
 - It contains a **personal website** and **blog** which are both still under development, created using vercel and the JAM stack.

- I would like to add dark launches, feature flagging, testing in production, canary launches, blue-green deployments, A/B testing, and so on.
- **Reddit clone:** I created a clone of Reddit.com using their API. I used Python and Flask to build the application, you could go to any subreddit and see all the popular posts but it was read-only.
- **Interest calculator:** This is a simple interest calculator which was a tech-challenge required for landing my job at VeriShare
- **T Shirt Viewer:** This was a simple Vue.js project where you could design a t-shirt by uploading an image and placing it on the front and back of a t-shirt
- **CV:** This CV was created using Typst, which is a markup-based typesetting system and alternative to Latex/MS Word for document creation. Here is the link to the repo: [callumvh/cv](https://github.com/callumvh/cv)