



JUAN-LUKE KLOPPER

Software Engineer

About Me

Motivated software engineer and DevOps practitioner currently advancing decentralized technology at Whispernode through foundational work in blockchain systems. My career journey includes previous experience in developing automated IoT systems for the agriculture sector and managing cloud infrastructure within the fintech sector. Driven by a passion for learning and innovation, I focus on tackling complex challenges in both software development and operations, with a commitment to continuous improvement.

Experience

WhisperNode - Remote (US based) Software Engineer Feb 2024 - Present

- Enhanced value addition to blockchain networks through advanced solutions and application development.
- Created blockchain explorers for new networks to track data from mainnet launch, developed custom Whispernode-themed applications, and facilitated communication with software foundations for solution building. Contributed to an open-source TypeScript SDK and updated the React version for the Restake website.
- Restructured the code infrastructure by implementing infrastructure as code, using Ansible playbooks to manage the setup and installation of software, replacing Docker containers.
- Provided significant value to networks through real-time data visibility via blockchain explorers, enhanced branding with custom themes, strengthened community tools with open-source contributions, and improved the reliability and scalability of the code infrastructure.

EtaPath - in office Jhb based Intermediate Full-Stack Developer Aug 2023 - May 2024

- Ensured code security, addressed numerous bugs, and improved system stability, which initially faced frequent technical problems.
- Conducted thorough documentation, created new features to reduce average waiting time for drivers and customers, identified and fixed pre-production bugs, and handled technical support by resolving database and code issues. Led a full system restructuring project to improve data handling and deletion processes.
- Reduced technical problems from two to three everyday to one to two every two weeks, enabling drivers to complete an additional one to two trips per week, significantly increasing revenue.



[Juan-luke Kloppe](#)



juan-lukekloppe.netlify.app



0725932505



jlkloppe@protonmail.com



Pretoria, Gauteng



[Juan-LukeKloppe](#)

Language

- English
- Afrikaans

Qualities

- Creativity
- Problem solving
- Adaptability
- Critical Thinking
- Leadership
- Self motivated



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Experience

Stake or Die, Remote (US based) - Junior Software Engineer Mar 2022 - May 2024

- Developed blockchain and backend applications, contributing as part of a development team
- Designed and implemented a CLI tool automating infrastructure setup, managing Linux servers hosting blockchain clients.
- Contributed to the internal Research & Development team by researching emerging technologies, creating documentation, and building prototype applications.
- Created Telegram and Discord bots for API interaction and real-time anomaly detection, streamlining information flow.
- Collaborated with stakeholders and clients, ensuring transparent communication, progress updates, and feedback integration.
- Participated in weekly meetings with key members of a multimillion-dollar foundation, contributing to strategic discussions.
- Played a pivotal role in running a public testnet and facilitating the initial launch of multiple blockchains.

NextNet, Remote (Israel Based) - DevOps Engineer Mar 2023 - Aug 2023

- Managed a diverse range of servers and hosted HTTPS endpoints, ensuring seamless functionality and accessibility.
- Integrated CI/CD tooling into the workflow, enhancing deployment processes and efficiency.
- Elevated Infrastructure as Code (IaC) practices by developing Ansible scripts for streamlined server management.
- Implemented monitoring systems using Grafana, enabling proactive issue identification and resolution.
- Orchestrated multiple RPC endpoints for various blockchains, optimizing data retrieval and processing.
- Collaborated with various cloud providers, including AWS, GCP, DO, and OVHcloud, adapting to diverse environments

IAPWE - (Remote) Freelance writer Oct 2023 - Present

- Authored and published multiple tech related blog posts, covering a range of topics from software development to emerging technologies
- Contributed guest posts to industry blogs, providing valuable insight on technology trends and innovations.



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Personal Projects

Emily, the email Assistant

- A dynamic SvelteKit web application powered by OpenAI. It streamlines the process of creating professional business emails through a user-friendly interface. Upon entering the desired email content, the application sends a Post request to an API. This API triggers server-side JavaScript to interact with OpenAI's API for prompt construction and response retrieval, ultimately presenting the response on the website. Additionally, a Dockerfile and GitHub action automate image creation and deployment to DockerHub, facilitating hosting on an Akash server.

SmartFlow Irrigation System

- I designed, built, and programmed an automated IoT irrigation system for Querencia Organic Snails SA. This system, Internally named SmartFlow, is a blend of hardware and software components. At its core, a Raspberry Pi 4 acts as a HomeAssistant server, interfacing with Sonoff WiFi switches and a custom data logger device. SmartFlow boasts a user-friendly dashboard that efficiently manages the operation of two borehole pumps, four solenoids, and a float switch. Ensuring a consistent water supply for the farm's tanks and regulating precise irrigation times and durations for the crops. Furthermore, it actively collects critical crop data. The system's unique feature allows remote updates via over-the-air (OTA) capabilities. The specialized data logger captures essential metrics including temperature, humidity, and soil moisture levels. Rapidly prototyped using an Arduino Uno and later upgraded to an ESP32 microcontroller, this device augments SmartFlow's data collection prowess.

Coursework

- Using Python to interact with the operating system by Google
- Troubleshooting and debugging techniques by Google
- Plutus/Haskell by European business university Luxembourg
- Generative A.I. fundamentals by Google cloud
- Introduction to CyberSecurity by TryHackMe



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Education

North-West University

Bachelors of Science in Information Technology
December 2023

Notable courses

- Data Structures and Algorithms
- Databases and Advanced DBMS
- System Analysis and Design
- Computer Networks
- Object-Oriented Programming
- Operating Systems
- Discrete mathematics

Skills Summary

PROGRAMMING LANGUAGES & FRAMEWORKS -

- Rust
- Python
- JavaScript
- HTML/CSS
- Bash
- C#
- SQL
- Ruby on Rails
- React
- Svelte

DEVOPS & SYSTEMS ADMINISTRATION -

- Linux
- CI/CD Pipelines
- Infrastructure as code (Ansible)
- NixOS
- Cloud infrastructure

ADDITIONAL SKILLS

- Debugging & Troubleshooting
- Open source contributions
- Internet of things
- Relational databases
- Blockchain technology
- Discord and telegram bots