

Gavin Keeley

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Work

BridgIoT (RF) (Pty) Ltd (2021 → 2022)

- Role: Firmware Engineer.
- Experience: Sigfox, PIC & STM32 MCUs, Production, Certification, Low Level C.
- Reference: Arno Scholtz (former CEO) [LinkedIn](#).

Octoco Ltd (2022 →)

- Role: Embedded Engineer.
- Experience: STM32 MCUs, Low Level C, ESP32.
- Reference:

Education

Stellenbosch University

- Bachelor of electrical and electronic engineering.
- Interests: Electronic Design, Computer Systems
- Final Project: Flood Warning System (83% result).

Kearsney College

- Subjects: IT, Science, Life Science, Maths, AP Maths.
- Sports: Hockey, Soccer, Canoeing.

Embedded Engineering

Background

- Got started with Arduino in early high school.
- Formalised my hobbyist roots with a degree in E&E Engineering at Stellenbosch University.
- Maintained electronics and programming as a hobby.

ARM Cortex M0 & M0+

- Mostly STM32 G & L MCUs (a bit of time with PICs).
- Experience working directly with registers (low cost and small flash MCUs).
- Extremely-low-power applications (IoT).
- High volume and low cost applications.

Electronic Design

- Well-thought-out and researched designs.
- Hands on approach.
- Space conscious design.
- Signal and power integrity knowledge.
- PCB Design: Experience in using KiCad and EasyEDA.
- RF: Basic RF PCBs (GPS feed lines, transmission lines).
- Other: ESP32 (Platformio, Arduino, RTOS), Bluetooth, LoRa, LoRaWAN and Sigfox.

Programming

Rust

- Excited about the prospect of sharing code between embedded, desktop and web.
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Python

- Django & Flask (web backend).
- Reportlab (PDF generation).
- Matplotlib.
- Hardware-Software integration through serial.
- GUI programming with Tkinter.

Web Front End

- HTML, CSS and Javascript/Typescript.
- Bootstrap & Tailwind CSS.
- Leaflet (maps).
- Chart.js (graphing).
- Svelte (see personal site for an example).

Other

- Java: Basic OOP and GUI programming.
- Proficient in SQL.
- Comfortable using macOS (current), Linux or Windows.

Miscellaneous

Dale Carnegie

- I have completed the Generation Next Course (focus areas: effective communication and human relations).

Interests

- Hiking the Drakensberg and Cape Fold Mountains.
- Canoeing the rivers of KZN.
- Sailing.
- Wildlife and game reserves of South Africa.

Documents

- South African drivers licence.
- South African identity document.
- South African passport.
- Eligible for a British Ancestral Visa.