

Makomborero Mangwiro

ELECTRONICS ENGINEER · NETWORK ENGINEER · SOFTWARE ENGINEER · TECH ENTHUSIAST

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Personal Profile

A self-starter currently seeking an opportunity in Engineering where I can utilise my knowledge and skills and progress in my career. I am committed to developing my knowledge in the growing industries of networking, software development and electronics engineering and will bring reliability, a strong work ethic and a positive attitude to make a valued contribution to your organisation. In addition, I have acquired valuable employability skills and personal attributes through my professional experiences and personal development.

Core Competencies & Skills

Programming	PHP, JavaScript, C, MATLAB, C, C++, SQL, Assembler.
Embedded Systems	AVR, ARM, RISV, Raspberry Pi, Beagle-Bone Black, DE-10 Nano (FPGA), QNX Neutrino
Miscellaneous	TeX(Overleaf), Microsoft Teams, Microsoft Office Suite, Git.
Soft Skills	Time Management, Teamwork, Problem-solving, Documentation, Engaging Presentation, Critical Thinking, Listening, Communication.

Work Experience

Mugonat Systems

Software Developer

October 2022 - Present

- Specialize in web development using frameworks such as Php/Laravel and C/ASP.NET for creating custom web applications.
- Focused on developing financial systems including a microfinance management platform and an ERP in most recent role.
- Required to navigate between the disciplines of software engineering and accounting/bookkeeping and collaborate closely with clients to generate workflows that met their unique accounting requirements and then convert them into effective software solutions.
- Experience working on e-commerce sites and completed front-end development work using ReactJS, Vue3, razor pages, jinja, and blade.
- Consistently demonstrated ability to deliver high-quality solutions that meet or exceed clients' expectations.
- Always seeking to learn new technologies and best practices to stay at the forefront of the industry.
- **Technical Skills:** MySQL, PHP/Laravel, C/ASP.NET MVC, React.
- **Soft Skills:** Teamwork, Time Management, Communication, Critical Thinking.

Newcold Advanced Cold Logistics

Industrial Automation Operator

June 2022 - Aug 2022

- Worked in a team of three to monitor smooth running of automation in a cold storage facility.
- Was required to find and resolve system faults which ranged from minor software glitches all the way to damaged mechanical components.
- In the case the system may be down for a prolonged period, I had to modify operating parameters of the system to optimise system throughput while part of it was down for repairs.
- Was also required to complete shift reports describing system performance throughout the shift.
- **Technical Skills:** Mechanical Aptitude, Electronics, Understanding of PLCs, Understanding of System via Technical Documents, Working at Heights Licence.
- **Soft Skills:** Teamwork, Time Management, Communication, Critical Thinking.

3rd Party Containers

Team Leader

Oct 2017 - May 2022

- Led a team of 3 - 6 team members at a client's site.
- Regular tasks included: invoicing clients for completed daily tasks, allocating tasks to team members in order to complete daily tasks in a timely and proficient manner, conducting weekly toolbox/safety meetings, enforcing safety directives, liaising with client staff about what needs to get done and how best it can be done in order to minimise cost to the client while producing high quality results, safe forklift operation and manual handling.
- Was capable of resolving disputes and disruptions among team members when necessary in order to maintain cohesive team.
- Regularly purchased sundry items such stationary, face masks and safety knives out of my own pocket. I found that this improved team morale and minimised disruptions due to missing equipment.
- Was the youngest ever appointed team leader on clients site.
- **Technical Skills:** Forklift Operation, Safe Manual Handling.
- **Soft Skills:** Leadership, Time Management, Communication, Logical Thinking.

Education

Royal Melbourne Institute of Technology, Melbourne, Australia

BEng(Hons) Computer and Network Engineering

July 2018 - June 2022

- **Overall Grade:** 2.5 GPA (AUS).
- **Summary:** The course covers a broad spectrum; mainly computer networks, software development and electronics. It also covers core topics such as engineering mathematics, physics and professional practice. RMIT is also world renowned for producing work ready graduates. Course modules are designed with industry in mind.
- **Courses:** Engineering Computing 1, Circuit Theory, Digital Systems Design 1, Physics 1, Security in Computing and Information Technology, Electrical Engineering Analysis, Electronics, Introduction to Embedded Systems, Engineering Design 2, Network Fundamentals and Applications, Engineering Mathematics A, Introduction to Professional Engineering Practice, Software Engineering Design, Computer Architecture and Organisation, Network Management and Software Defined Networks, Signals and Systems 1, Research Methods for Engineers, Engineering Design 3, Block-chain Applications and Smart Contracts, Mathematics for ECE, Embedded System Design and Implementation, Real Time Systems Engineering, Advanced Network Engineering, Network Engineering, Enterprise and Cloud Networks, Network Design and Performance, Computer and Network Security, Engineering Capstone Project Part A, Network Access Systems, Advanced Digital Design 1, Wireless Sensor Networks and the Internet of Things, Engineering Capstone Project Part B.

Royal Melbourne Institute of Technology, Melbourne, Australia

Foundation Studies: Science, Engineering and Health

July 2017 - June 2018

- **Overall Grade:** 4.0 GPA (AUS).

Projects

IoT Mousetrap Network

Embedded Systems: IoT Development

- The aim of this project was to develop a network of mouse traps capable of tracking the number of captured mice and synchronizing statistics with a central database. This data can then be processed into meaningful information and presented to users via a web interface.
- I developed a prototype of the system consisting of one LoraWAN-enabled mousetrap and one LoraWAN gateway. Data storage and processing was facilitated by Thingspeak via The Things Network.
- **Technical Skills:** MATLAB, C/C++, python, HTTP/TCP/IP.
- **Soft Skills:** Report writing, Critical Thinking.

Loan Management System

Web Development: Backend

- I am currently undertaking this project under Mugonat Systems. We are developing a Loan Management system for Panamax Capital ([click here](#)). I am currently the sole developer on the project and am tasked with performing system design, front-end and back-end duties.
- The platform is capable of tracking clients, loans, payroll, creditors and charts of accounting as well as platform user's activity.
- The client is currently making use of the platform in parallel with their traditional record-keeping. We are making use of the minimum viable product principle to continue improving the platform.
- **Technical Skills:** PHP/Laravel, phpMyAdmin, MySQL, JavaScript, Vue.
- **Soft Skills:** Critical Thinking, Stakeholder engagement.

Design and Simulation of a 12-bit RISCv based CPU Architecture and Instruction Set

Electronics: Circuit & PCB Design

- The objective of the project was to design a hardware-based CPU architecture and instruction set that could perform calculations for determining the greatest common divisor between two values.
- The circuit was implemented as a PCB using Altium designer and each circuit component was soldered to the PCB by hand.
- **Technical Skills:** Altium Designer, NI Multism, Soldering Iron, Datasheets.
- **Soft Skills:** Critical Thinking, Report Writing.

Training & Development

I continuously engage in challenging projects in order to develop new skills while keeping the skills I have obtained as a developer sharp. I am currently working with a mentor who regularly assigns me projects to improve my problem solving skills. Most recently, I developed a system that can detect the position of a sound source in one dimensional space. In the next few weeks we will be expanding this project to work in three dimensional space. Additionally, I am currently teaching myself web development, and will soon have mastered HTML and CSS.

Interests

Cars

I enjoy learning about and tinkering with motor vehicles. Currently I am obsessed with the Japanese automotive world or JDM scene. My current attainable dream car is the JZZ30 Toyota Soarer.

History

I have always enjoyed consuming history related media. I am currently listening to Dan Carlin's King of Kings Trilogy from the Hardcore History series.

Fashion/Shoes

I enjoy following looking at the latest in shoe designs and am a big fan of Kanye West's Yeezy brand. Although I've never been wealthy enough to indulge myself.

Swimming

I started swimming when I was 12 years old. I was able to improve my skills to the point of swimming freestyle for my high school's swimming team.

Music

I almost always have my headphones with me where ever I am. When I was younger I was a huge fan of Coldplay and primarily listened to their works, but have drifted away from their genre and now listen more to hiphop, house and electronic.