# Michael Poulgrain

Software Engineer

OB: 09/02/1994 | OB: 09/02/1994 | OB: 09/02/1994

# Summary

Hard working electrical engineer looking for a career-shift to software engineering. Previous experience in both the biomedical and electrical engineering field which developed teamwork and communication skills as well as an independent work ethic. Seeking new experiences and challenges. Lifelong learner who works well under pressure.

#### **Experience**

# Sota Service

2023 - 2024

Electrical Engineer

São Paulo, Brazil

- https://sotaservice.com.br/
- Conducted grounding analysis studies including ground fault current, touch and step voltage calculations and lightning protection for substations within Brazil.
- Developed an electron desktop application to calculate ground fault current along a transmission line to improve speed and accuracy of results.

#### Nova Biomedical

June 2018 - June 2021

Biomedical Engineer

QLD, Australia

- https://www.novabiomedical.com.au/
- Preventative and corrective maintenance of medical devices including ventilators, ultrasound, hospital networks as required by AS/NZ 3551
- Installation of patient monitoring in hospitals across AU/NZ.
- Project management and implementation of field corrective orders for BD and Philips Healthcare across AU/NZ.
- Developed and maintained business applications for record-keeping and asset management both internally and for the Royal Flying Doctors Service QLD.

## **Various International Work**

2016-2018

After graduating from university, I spent 18 months traveling through Europe, North Africa and Asia. During this time I volunteered at over 10 different jobs in a range of countries and fields including working with animals at a farm, cooking, building natural homes and working in a remote mountain hiking hut. Working in these various fields is a testament to my enjoyment of learning new skills and my ability to quickly adapt.

A Team Tuition 2014-2016

Academic Personal Trainer

QLD, AU

- <u>https://ateamtuition.com/</u>
- Tutored grade 4 to university students in Maths, English, Science and Engineering.
- Good outcomes with children were achieved by successfully communicating and then motivating them to develop time management skills and self-confidence.
- Worked with students with learning disabilities and was able to adapt to different students strengths and weaknesses.
- Liaised with parents about their children's achievements and difficulties. At times unrealistic expectations needed to be highlighted for the benefit of all.

# **Projects**

#### **Transmission-Lines**

2023

Desktop Application: Fault Current Analysis

https://github.com/Michaelp1994/transmission-lines/

During my time at SOTA Service, I built a complete desktop application to calculate the fault current along a transmission line during fault conditions. This was built on top of the open source OpenDSS software. The aim of the project was to simply the overly complex building of circuit models and dsiplay the results in easy to understand diagrams.

React, Electron.js, Node.js, ORM, Testing, tRPC

#### **Workshop Management Tool**

2021

A web application built to track workshop repairs.

https://workshop-repairs-nine.vercel.app

During my time at NOVA Biomedical, I built a simple web application for the company to track repairs being done at the warehouse. Before it's implementation, there was no structured system for management and there was often problems caused by paperwork being lost or repairs not being properly billed to customers. Although simple, the system is still in use to this day.

Nextjs, Reactjs, Nodejs, HTML5, Tailwind, PostgreSQL

# Education

# **Griffith University**

2013 - 2016

Bachelor of Engineering (Electrical & Electronic Engineering) 5.7 GPA

University

- https://www.griffith.edu.au/
- Class IIA Honours, 5.7 GPA (7.0 scale)
- Awarded Griffith Award for Academic Excellence 2014
- Distinction in thesis, "The application of weather forecasting in small scale solar photovoltaic (PV) grids." undertaken at Rhine-Waal University of Applied Sciences in Kleve, Germany

# Certifications

# Meta Front-End Developer

January 2024

Coursera

Certificate

Meta Back-End Developer

January 2024

Coursera

**©** Certificate

Meta Database Engineer

January 2024

Coursera

**O** Certificate

#### Skills

## Web Design & Development

Frontend Frameworks

**Programming Languages** 

Javascript/Typescript, PHP, Python

HTML, CSS

**Backend Frameworks** 

React, Vue.is

NextJS, Express.js, Django

**Database Management Systems** 

**Developer Tools** Git, Github, AWS

PostgreSQL, MySQL, SQLite, DrizzleJs, Prisma,

TypeORM

# Languages

## **English**

# **Portuguese**

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# References

# Joe Welch

Service Manager, Nova Biomedical

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# Thiago Brizio

Head Electrical Engineer

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