# **Geoffrey Channon**

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#### **OBJECTIVE**

I'm an Electronic Engineering student in my penultimate year of my Masters of Professional Engineering study. I have a particular interest in embedded systems, and I am a very experienced programmer in a variety of languages.

#### **EDUCATION**

# **Masters of Professional Engineering - Ongoing**

September 2016 - July 2018 (Expected) University of Western Australia

GPA: 6.25

Masters Project 1 - Battery Pack Replacement for Refrigerated Container

Major in Electrical & Electronic Engineering

#### **Notable Units**

- Project Management and Engineering Practice
- Digital and Embedded Systems
- Control Systems
- Artificial Intelligence and Adaptive Systems
- Signal Processing

### **Bachelors of Science - Graduate**

February 2013 - July 2016
University of Western Australia
Dual major in Electronic Engineering and Computer Science

#### **RELEVANT EXPERIENCE**

# Oil and Gas Internship, Pathfinder Energy

November 2015 - February 2016

- Learnt the use of IHS Kingdom software
- Construction of in depth reports using appropriate software
- Aggregation of data into easy to use database
- Construction of software to update and convert outdated file formats
- Interpretation of simple seismic and wireline data
- Creation of automated systems to produce powerpoints and figures en-masse.

# **Technical Assistant, Todd Energy**

October 2013 - October 2014

- Construction of database for available data
- Sourcing relevant documents from websites and journals
- Interpretations and summarising of large reports
- Accurate data entry
- Heavy use of Excel including VBA scripting

#### **SKILLS**

#### **Programming**

Skilled programmer in a variety of uses and languages, including low-level and cross-platform programming.

#### Languages

- C
- Python
- Java
- Assembly
- Matlab
- SQL

#### **Frameworks**

- Arduino
- Qt
- GTK+
- SciPv
- NumPy

Experience in the use and development of AI, optimising algorithms, and machine-learning algorithms, particularly used in optimisation research.

#### **Electronics**

Experience in Circuit Design, at a schematic level and simulation, using OrCAD software for simulation and KiCAD software for PCB design. Hands-on work in the construction and repair of circuits, including the soldering of Surface Mount Devices (SMD)

#### **Software**

Skilled using the Office suite of tools, including the scripting and automation of tasks within Excel and Powerpoint.

Experience using 3D modelling software for the purpose of creating 3D printed objects, using Fusion 360 and also OpenSCAD modelling software.

Skilled in database management, using both scripting in SQL, and database tools, such as Microsoft Access.

# **PROJECTS**

#### **Battery Pack Replacement for Refrigerated Container**

Jointly lead the design of a battery pack to replace a diesel generator for a refrigerated container. Designed around clients requirements, under the guidance of Academic Supervisors and a Senior Engineer. Design was built to comply with current Australian and New Zealand standards, and was designed using various high-level engineering tools, including the AutoCAD suite.

#### **Custom 4-bit CPU**

Full design and construction of a simplified CPU architecture with 4-bit memory and four different instructions. System was fully designed from logic diagrams to custom Printed Circuit Board (PCB) construction. Architecture designed using logic simulator software, 'ReTrO', schematic designed using KiCAD software. Circuit was hand constructed using standard SMD components. Cost analysis was performed to produce a full Bill of Materials.