

# Michael Smith - Resume

Phone: +61 400 739 008 e-mail: michael.smith1831@gmail.com

## EDUCATION

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### The University of Queensland - 2013 to 2017

Bachelor of Engineering (Honours) and Master of Engineering with Honours Class I in the Field of Electrical and Computer Engineering

Achievements:

- Received the Dean's Commendation for Academic Excellence, that recognises a semester GPA of 6.6 or better. Awarded for nine of the ten semesters studying engineering at UQ;
- Awarded the Vice Chancellor's Scholarship in 2013 for being amongst the highest achieving high school students entering university;
- Member, RWH Hawken Scholars, a faculty program that connects the top 5% of students with industry.

## EMPLOYMENT HISTORY

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### EM Solutions

January to June 2017

For my undergraduate thesis I designed a compact, low-EMI, brushless DC motor interface board for controlling the movement of a satellite tracking terminal. This work was completed for EM Solutions, a manufacturer of broadband and satellite communications products, see [emsolutions.com.au](http://emsolutions.com.au)

### UQ CSSE2010 and ENGG2800 Casual Demonstrator

2015 to 2017

I have tutored two courses (over multiple semesters) while at UQ. They are:

- Introduction to Computer Systems (CSSE2010): where I presented course material to up to 100 students; taught students about digital logic, digital systems, and C programming on an AVR microcontroller.
- Team Project I (ENGG2800): where I assisted teams of electrical and software engineering students to work together to produce a product (such as an audio synthesizer or data logger).

### CSIRO - Undergraduate Student

November 2015 - February 2016

Under Doctor Philip Valencia at the Queensland Centre for Advanced Technologies I developed the firmware for a wireless sensor node using a low-power embedded operating system (Contiki-OS). The nodes logged various environmental sensors as well as Bluetooth beacon strength (to determine the position of the nodes) to flash memory and used 802.15.4 to transfer their data back to a base station.

### UQ Winter Research

June 2015 - October 2015

Working with Professor Janet Wiles I helped to investigate the utility of social robots for teaching environments. I constructed the frame for a prototype robot, and helped to test how humans interacted with the 'robot' through touch sensors, a touch screen, and other technologies.

### QGE and Extend Training - Undergraduate

July 2014 - July 2015

QGE and Extend Training are related companies that focus on electrical engineering for hazardous areas in the industrial and resources sectors. My work involved administration with a focus on logistics, record keeping, and customer interaction as well as processing alarm data and assisting with a life cycle analysis of a solar PV installation.

## VOLUNTARY WORK

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### **Field Operations Member - State Emergency Service**

**February 2016 - present**

The SES is a volunteer emergency services organisation that assists the community in times of need. During my time with the SES I have:

- Provided temporary repairs to buildings after the impact of storms and cyclones;
- Assisted the Queensland Police Service with missing person searches;
- Provided assistance, for crowd control and first aid, at various community events including ANZAC day, fireworks displays, and fun runs.

### **UQ Robotics Secretary**

**2016**

The UQ Robotics club is a small student-run robotics group at UQ. We use the club as a place to share ideas and get advice on our own private projects. As secretary my role involved:

- Sourcing a speaker for a talk on hexapods and autonomous legged robots;
- Developing a Printed Circuit Board (PCB) workshop to teach students about PCB design software.

### **COMPCON 2015 Speaker and Scheduling Officer**

**2015**

CompCon is a national student-run computer science conference. My role included:

- The full responsibility of scheduling the event over the three days it ran as well as organising speakers for the conference;
- Ensuring the event ran smoothly by performing background work for the duration of the conference.

### **Engineers Without Borders (EWB) UQ Student Chapter**

**First half of 2014**

My role involved:

- Organising and running an Appropriate Technologies workshop with the EWB student chapter at UQ to raise awareness about the limitations of technology in developing countries;
- Securing a speaker for the workshop and co-running the event.

## ADDITIONAL INFORMATION

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- Skilled at PCB design in Altium and Eagle
- Skilled in using Matlab, C (especially for microcontrollers) and Python
- Competent in using Java
- Some experience with VHDL
- Full, open drivers licence
- Trained in First Aid and CPR
- Checkout my website at: <http://michaedwardduffysmith.net>