

Brian Khuu

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0430 249 470

A Bachelor of Engineering graduate,
proficient in practical electronic design and prototyping.



EDUCATION

The University of Melbourne - B.Eng, Electrical (2015)

Melbourne High School - MHS

INDUSTRY EXPERIENCE

LIFX - Graduate Firmware Engineer (May 2016 - June 2017)

IoT consumer wifi smart lighting company

- ▶ **Given initial responsibility for both LIFX Z and LIFX+** to develop a proof of concept firmware for each. (LIFX Z is an LED strip light, with independently controllable zones) (LIFX+ is an IR security light)
- ▶ **Investigated and solved various bugs and issues** as well as providing a detailed log of possible causes or fixes available.
- ▶ **Maintaining/Releasing release binaries** for LIFX devices. Ensuring quality via consistent release process, milestone tracking and code review. Used **git** for version control.

AndMine - Intern Engineer (December 2013 - March 2014)

IoT sensor aimed at the consumer biomedical industry

- ▶ **Considered and amended** the original prototype schematic and design for manufacturability in Altium.
- ▶ **Calculated and quantified** costings to give the director information to make an informed decision.
- ▶ **Assisted and provided professional advice** to the next team taking over. With ongoing support and consulting provided.
- ▶ A continuation of the **"Human Spine Corrective Device"** capstone project from University.

TECHNICAL COMPETENCIES

Firmware Design: **MQX, ThreadX, IAR Workbench, Xtensa**

Programming languages: **C, C++, Python, MATLAB/SIMULINK, PHP, MySQL**

Electronic Design: **PSPICE, LTSPICE, Altium, Atmel Studio, Arduinio, Soldering**

Version Control: **Git, SVN**

TECHNICAL EXTRACURRICULAR

Unimelb Space Program - Power Distribution Team (July 2015 - May 2016)

- ▶ **Used MATLAB to develop the solar budget GUI and report** for simulation of received solar energy.
- ▶ **Written Engineering Documentation** to improve future maintainability of MATLAB scripts.
- ▶ **Utilized Weighted Criteria Decision Process** for decision consistency. Useful for problems with conflicting criteria.

CERTIFICATION & AWARDS

Construction Induction Training (White Card) (Obtained: 22th March 2016)

Trained in the basic principle of health and safety in the construction industry as well as information about preventing injury and illness in the workplace. Name: "Brian Hop Khuu" CertNo#: 116477-702241

Amateur Radio Operator (Foundation) (Obtained: 26th February 2013)

Qualified amateur radio operator in relation to a transmitter license for an amateur Foundation station in accordance with the provisions of the 'Radiocommunication Act 1992 (the Act)'.

The Duke of Edinburgh's Award (Level Bronze) (Obtained: 7th August 2007)

Year long leadership development program, that aimed to instils a desire to be aware of our collective impact as a society.

EXTRACURRICULAR

Designing Open Democracy Meetup - co-founder / co-organiser (December 2016 - Ongoing)

- ▶ **Designed the logo** for this meetup group. Aiming to keep it simple and straight to the point.
- ▶ **Conducted initial research** on community interest level for an e-voting technology discussion focused group
- ▶ **Engaged in outreach** by contacting academics and tech professionals who may be interested in such discussions.

PROJECTS

Some examples of projects I have done, some personal, some for university. Ask for further examples.

Gameboy Printer Emulator - github: arduino-gameboy-printer-emulator (Apr 2017 - May 2017)

Wanted to extract images from my gameboy camera. So coded an arduino sketch to emulate a gameboy printer.

Personal Website - www.briankhuu.com (June 2013 - ongoing)

- ▶ **Written** Project logs includes: Teardowns, internet outage reseters, attempted reverse engineering of PLCs serial communications.
- ▶ Other examples, which would illustrate my ongoing interest in electronics are detailed in my website.

Github Contributions - www.github.com/mofosyne (2011 - Ongoing)

- ▶ Contributed fixes, additions to various opensource repositories.

Android Apps (2014 - 2015)

- ▶ **NFC Message Board** : Uses NFC tags for local asynchronous messaging. (Mentioned in a n-o-d-e.net article "DIGITAL DEAD DROPS: SECRET COMMUNICATION IN PLAIN SIGHT" a cyberpunk e-zine.)
- ▶ **TagDrop** : Scan a sequence of QR codes to decode a small file.

ASSOCIATIONS & CONVENTIONS ATTENDED

Engineers Australia (2016) - Graduate (Electrical) member of Engineers Australia. *Membership No: 5235036*

Electronex (Melbourne) (9 - 10 September 2015) - Attended an electronic design and assembly expo at Melbourne Park Function Centre. Lectures included topics like conformal coating tips.

Connected Community HackerSpace - CCHS (2014 - 2015) - A hackerspace to meet other people who like electronics. Helped out any newcomers with basics of electronics.

CommonMark Community (2014 - ongoing) - Participate in discussions on furthering the usage of the markdown and commonmark standard.



Private and Confidential

16th June 2017

To Whom It May Concern,

During Brian's time at LIFX, he demonstrated an excellent ability to develop proof-of-concepts across a number of initiatives that explored the potential of our product range in the IoT space, some of which were delivered under restrictive commercial time constraints. He was actively engaged in team discussions as well as being enthusiastic in his willingness to assist others wherever possible.

With his mix of hardware and software skills and inquisitive nature, Brian would be perfectly suited to working in a R&D type environment and would make a great addition to any team that needs someone who can develop working proof-of-concepts and prove out challenging ideas.

Yours Sincerely,

Norbert Herrmann
General Manager
LIFX