

## Fu Yong Quah

[fuyong.quah14@imperial.ac.uk](mailto:fuyong.quah14@imperial.ac.uk) | [www.fyquah.me](http://www.fyquah.me)

Twitter, Github, LinkedIn: fyquah95

Final year Electronic and Information Engineering undergraduate at Imperial College London, United Kingdom.

### Skills

FPGA Design	SystemVerilog, Maxcompiler, Vivado HLS, Quartus, Resource and Performance Modelling
Programming	OCaml, C++, Python, Clojure, Java
Environment	Developing and shell scripting in Unix-based environment

### Education

2014 - 2018	Imperial College London, London, UK MEng. Electronic and Information Engineering First class, Dean's List <i>Computer Architecture, Control Engineering, Computer Vision, Simulation and Modelling, Operational Research, Mathematics, Language Processors</i>
2013 - 2014	INTI International College Penang, Penang, Malaysia Cambridge GCE A-Levels: 4A* in Mathematics, Further Mathematics, Physics and Chemistry.

### Professional Experience

04/2017 - 09/2017	Jane Street Capital - Software Engineering Intern
07/2016 - 09/2016	Google Inc - Software Engineering Intern <ul style="list-style-type: none"><li>• Deploy python static analysis tool (<a href="https://github.com/google/pytype">github.com/google/pytype</a>) to code review tool.</li><li>• My work was used to run program analysis Borg, pytype and an internal tool.</li><li>• Worked with pytype and bazel, in python and java</li></ul>
06/2015 - 08/2015	Netcraft Ltd - Internet Service Developer Intern <ul style="list-style-type: none"><li>• Worked primarily on a classification project of hosting companies</li><li>• Automated data collection and validation using Perl, Bash scripts and Cronjobs.</li><li>• Improve and maintain a web interface for manual data labelling (Perl/CGI/MySQL)</li></ul>

### Projects

01/2017 - 03/2017	fpgaConvNet on Maxeler <ul style="list-style-type: none"><li>• Map convolutional neural networks to FPGA using maxcompiler.</li><li>• Optimized design with logic units, BRAM, DSP and performance mathematical models.</li></ul>
01/2016 - 03/2016	Self-Hosting C Compiler <ul style="list-style-type: none"><li>• Implement a turing complete portion of a C to MIPS compiler</li><li>• Written in C, flex and bison, extensively using classic C dynamic-dispatch techniques</li></ul>
05/2015 - 06/2015	Real-time Autofocus for FPGA [link: <a href="https://youtu.be/UJXkHhFQPak">https://youtu.be/UJXkHhFQPak</a> ] <ul style="list-style-type: none"><li>• Developed an algorithm to carry out autofocus with FPGA via edge detection.</li><li>• Written in C++ using High Level Synthesis with Verilog HDL.</li></ul>

### Awards

2016	NUS Data Science Challenge - Grand Prize PennApps - Grand Prize ( <a href="http://technical.ly/philly/2016/01/25/scary-hardware-hack-won-pennapps-ramear/">http://technical.ly/philly/2016/01/25/scary-hardware-hack-won-pennapps-ramear/</a> )
2015	Head of Department Prize - Top student in first year Electronic and Information Engineering Won Grand Prize in the Fishackathon, sponsored to attend World Mobile Congress 2016 Won Grand Prize in the Imperial Bitcoin Forum
2014	King's Scout title (Eagle Scout equivalent) Represented Malaysia in the International Olympiad in Informatics (IOI)

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**Languages**

**English, Chinese (Mandarin), Malay**