Jason Wong

University of Toronto, Electrical Engineering

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Education

Electrical And Computer Engineering,
***University Of Toronto**, CANADA (2012-2017)*

- *Capstone Project*: Efficiency of Wall Chargers with Gallium Nitride (GaN) Transistors
- *Interest*: power electronics, analog/integrated circuits

Experience

***Summer Volunteer** (May – August 2016)*
University of Toronto, Toronto (Professor W.T. Ng)

- Assisted in investigating Class D Audio Amplifiers with Si and GaN transistors
- Utilized lab equipment (logic analyzer and Audio Precision interface) to analyze digitalized sound sent to programmable codec board
- Interfaced a CODEC device using C

***Front End Intern** (November 2015 – April 2016)*
Adparlor, Toronto

- Enhanced and modified the frontend AdParlor platform using Backbone, MarionetteJS and StickIt
- Proactively investigated and closed bug requests as they became available through request queues- reduced existing bug queue by 40%
- Maintained frontend system with Twitter and Facebook advertising APIs via collaboration with backend developer to minimize downtime
- Added new features and assisted with testing during beta and public launch phases for admocks.adparlor.com.

***Software Developer** (May – September 2015)*
Desire2Learn, Kitchener-Waterloo

- Refurbished existing product features currently in .NET by using Javascript libraries (NodeJS, Karma and Angular), HTML and Sass

***Spark Design Club Co-president** (May 2015 – May 2017)*

- Designed multiple innovative, interactive displays around campus in conjunction with mechanical and electrical undergraduate students (see "Projects" Section)
- Directed and mentored club executives to fulfill design club missions and goals, winning Engineering Society Award for achievement and contribution towards Skule

Projects

4th Year Capstone Design Project: Efficiency of Wall Chargers with GaN Transistors

- Designed and compared USB C chargers with GaN and Si MOSFETs that could potentially be used in the future
- Designed PCB and selected components; verified correctness of PCB layout by building and testing incrementally; debugged circuit to verify functionality

Spark Design Club:
A list of some of the most engaging interactive displays built when I was in the team:

- Ready Set Step! – An electromechanical two-player display played by constantly stepping on a tile to move the display. This display was done in collaboration with another club (Sustainable's Energy Association) to promote energy awareness
- Connect 4 – a magnified and electronic version of the game with discs replaced with LEDs
- Music Switchboard – a giant array of mechanical switches used to compose music with a Raspberry pi

Skills

- *Programming*: C, C++, C#, HTML, CSS, SASS, Javascript, Shell/Terminal (Bourne), SQL, Verilog
- *Embedded Systems:* Arduino, Raspberry Pi, Altera FPGA
- *Productivity*: JIRA, Rally, GitHub, GitLab, SVN, SourceTree
- *IDE*: Netbeans, Eclipse, Visual Studio, Quartus II,
- *Analytical*: LTspice, MATLAB, Eagle PCB, Altium, PLECS

Awards

- *Engineering Society Affiliated Club of the Year* (2015-16): Spark Design Club

Extra-Curricular/ Leadership

- *University of Toronto Robotics Association*: Combat and 3D printer
- *Spark Design Club*: Co-President (2015-Present), Marketing and Webmaster (2014-15)
- *Undergraduate Research Day 2014:* Logistics Director

Interests

- *Sports:* Volleyball, hockey and basketball
- *Development:* Web and Mobile