

Tony Wu

3RD YEAR ELECTRICAL ENGINEERING

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Skills

Programming Python, C, C++, Perl, SQL**Equipment** Digital Multimeter, Function Generator, Oscilloscope, Soldering Iron, Spectrum Analyzer**Other** Arduino, MATLAB, Multisim, Photoshop, Visual Studio

Experience

Hydro One Brampton

Brampton, Ontario

Asset and Project Management Intern

September 2015 - December 2015

- Designed and implemented a pathfinding algorithm which saved the company \$10,000 and provides detailed information about connections within the city grid that was previously unavailable — *Python*
- Created a comprehensive database of all underground conductors in the city grid which improved the company's understanding of reactive capital expenditures from 2009 - 2015
- Improved the quality of data in the company's GIS by writing various scripts that automatically identify errors in the company's GIS database — *Python*

SkyWave an ORBCOMM Company

Kanata, Ontario

Hardware Test Automation Intern

January 2015 - April 2015

- Developed an application to automate power consumption tests of SkyWave satellite terminals as well as providing real-time analysis of collected data — *Python, Visual Studio*
- Created a framework for communicating with various SCPI-enabled testing equipment allowing test scripts to be created quickly and easily — *Python*
- Tested satellite terminals in a lab environment to collect power values at different stages of operation (sleep, wake, transmission)

General Electric

Markham, Ontario

Hardware Design Validation Intern

May 2014 - August 2015

- Tested EEPROM chips from 4 vendors to determine suitability to replace obsolete components on existing boards
- Modified firmware to allow compatability with selected vendor EEPROM — *C*
- Prepared Hardware Test Reports and Engineering Instructions as part of an Engineering Change Order (ECO)
- Created scripts to normalize and organize test output for analysis — *Perl, SQL*

Projects

Arduino Music Player

Created a charlieplexed circuit with 13 LEDs to mimic a single octave on a piano. Sequences of notes are played through a piezo speaker and the corresponding notes are represented visually by the LEDs — *Arduino*

Microcontroller Circuit

Designed and soldered a circuit to control an LCD display with both analog and digital inputs. — *C, PIC18 MCU*

Education

University of Waterloo

Waterloo, Canada

Candidate for B.A.Sc in Electrical Engineering

Sept. 2013 - Present

- Current ENG Soc Representative; liason between the engineering society and the ECE class of 2018