Tony Wu

3rd Year Electrical Engineering
tonyhuiwu.com | tonyhuiwu@gmail.com | 226.606.1914

Skills

Programming: Python · C · C++ · Java · Perl
Equipment: Oscilloscope · Network Analyzer · Function Generator · Spectrum Analyzer · Soldering Iron
Tools: Arduino · Eclipse · Git · MATLAB · Multisim · Visual Studio · Photoshop
OSes: Linux · OS X · Windows

Work Experience

Asset and Project Management Intern
Brampton, Ontario
Hydro One Inc
Sep 2015 - Dec 2015

- Designed and implemented a pathfinding algorithm using Python to find connections within the city grid
- Created a database of all underground conductors which improved the company's understanding of reactive capital expeditures
- Wrote various Python scripts to identify errors within the company's GIS database
- Redesigned splice record form to minimize the entry of incorrect data

Hardware Test Automation Intern
Kanata, Ontario
SkyWave an ORBCOMM Company
Jan 2015 - Apr 2015

- Developed a GUI to automate power consumption tests using IronPython and Visual Studio
- Created a Python framework for communicating with SCPI-enabled test equipment
- Tested and analyzed satellite terminals for current draw during different stages of operation

Hardware Design Validation Intern
Markham, Ontario
General Electric
May 2014 - Aug 2014

- Tested EEPROM chips to determine suitability for replacement of obsolete components on existing boards
- Modified firmware in C to allow compatibility with selected vendor EEPROM
- Created documentation and test reports as part of an Engineering Change Order
- Wrote Perl scripts to standardize test output files for easier analysis

Projects

Arduino Music Player

- Created a circuit to play music through a piezo speaker and light up LEDs corresponding to the note played
- Pictures and schematics are available at http://tonyhuiwu.com/chiptune.html

BJT Op-Amp

- Designed a multistage amplifier using BJTs
- Simulated using Multisim and improved the circuit through testing with a function generator and scope

PIC18 Microcontroller Circuit

- Designed and soldered a circuit to display strings on an LCD and control its contrast and brightness with potentiometers

Education

University of Waterloo
Waterloo, Canada
Candidate for B.A.Sc in Electrical Engineering
Sept. 2013 - Present

- Engineering Society Representative; liason between the engineering society and the ECE class of 2018