Owen Qiao

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# Objective

* I am an electrical engineering student who’s passionate about the electronics industry. Currently, I am working as a research assisstant. And I am looking for an entry-level job starting around December.

# Education

* B.Eng. Spec. Hons. Electrical Engineering | Feb 2019 | York University

# Achievements

* The Gordon and Agnes (Twambley) Brash Award in Eng York Nov 2015, Nov 2014
* The award is presented annually to a full-time student enrolled in the Engineering Degree Program within the Lassonde School of Engineering, who has maintained a cumulative grade point average of 6.0 (B) or above.
* University Continuing Student Scholarship Aug 2014
* The York University Continuing Student Scholarships are distributed annually in August for the upcoming fall/winter session to undergraduate degree students who have achieved outstanding academic results in the previous summer and fall/winter sessions.
* Lassonde Undergraduate Research Conference Aug 2018
* A Non-Invasive Wireless Respiratory Monitoring System for Animals (poster)

# Skills and qualifications

**Software skills**

* Java, Javascript, C, C#, .NET Core, Python, PyQt GUI, MIPS assembly
* Linux, Object-Oriented Programming, Data structures, multithreaded programming, Git

**Hardware skills**

* FPGA, Verilog, Embedded software development, I2C, SPI, UART, Bluetooth, Wifi
* Embedded hardware design, Power Electronics, PCB layout design, BOM management
* SMT soldering, Hot air rework, Wire bonding, Electroplating, Electronics repair

**TheorEtical knowledge**

* Digital communication, Digital logic, Signal processing, Control systems, RTOS
* 3-phase power distribution network, Synchronous machines, Transformers

**Design and diagnostic tools**

* MATLAB, LabView, Altium Designer, Cadence, NX, Solidworks, Siemens PSSE, Atmel studio
* Multimeter, oscilloscopes, Function generator, Logic analyzer, Network analyzer

**Soft Skills**

* Research skills, Problem-solving, and Analytical skills

# Volunteer Experiences

## Creative manager | Excellassonde | 2014-2015

* Advertised our tutoring service.
* Creating and distributing posters and doing in-class announcements.
* Worked as a peer tutor for first and second-year courses.
* Revised the tutorial schedules.
* Prepared and conducted interviews to recruit new peer tutors.

## Electrical SUBSystem DesiGNer | York university Space engineering nanosatellite demonstration group | 2015-2016

* Revised existing EPS board PCB layout.
* Participated in creating payload handling the application on NASA opensource OS.
* Conducted battery qualification test.
* Gained elementary knowledge in embedded software development.

## Electrical team Lead | Lassat CSDC yorku team (Canadian Satellite Design Challenge) | 2016-present

* Created new component libraries for the satellite solar cell.
* Schematic entry and the layout design of satellite solar panels using Altium designer.
* Prepared presentation and tutorials for new members of the team.
* Took part in revising various electrical subsystems of the satellite such as OBC, EPS, ACS boards.

# Work Experiences

## Research Assistant | BioSA Lab York University | 2018-present

* Designed and developed a wireless gesture recognition glove with IoT products.
* Designed and developed a breath rate sensing system for small animals with IoT products.
* Designed and developed a testing platform for a bio-sensor IC with Arduino and custom PCB.
* Conducted chemical test on bio-sensor ICs.
* Managed BOM files and ordered PCB and components from manufacturers and suppliers.
* Assemble the PCB with hot air rework station.
* Gained experience with various serial communication protocols such as SPI, UART.
* Wrote graphical testing interface with PyQt, C#, MATLAB.
* Gained experience with wireless technologies such as BLE, Wi-Fi, TCP/IP.
* Extensive hands-on experience with sensors and data acquisition system.
* Excellent device characterization, testing, and product prototyping skills