Kuanghua Qiao

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Objective

- I am an electrical engineering student who's passionate about the electronics industry. Currently, I am looking for an entry-level job to apply my skills and expertise.

Education

- B.Eng. Spec. Hons. Electrical Engineering | Oct 2018 | 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)

- 61st IEEE International Midwest Symposium on Circuits and Systems Aug 2018
- Age-Related Macular Degeneration Diagnostic Tool: Hardware and Software Development

Skills and qualifications

- Java, Javascript, C, C#, .NET Core, Python, PyQt GUI, Verilog, MIPS assembly
- MATLAB/Simulink, LabView, Altium Designer, Cadence, NX, Solidworks, Siemens PSSE
- Linux, Object- Oriented programming, Data structures, OS, multithreaded programming, Git
- Digital communication, signal processing, control systems
- FPGA, Embedded software development, Atmel studio, Microchip family microcontroller
- Power electronics, PCB design, hot air rework
- 3-phase power distribution network, synchronous machine, transformers
- Multimeter, oscilloscopes, function generator, logic analyzer
- Circuit testing, software debugging, 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.

VICE PRESIDENT | ELECTRICAL ENGINEERING CLUB FOR STUDENTS | 2014-2018

- Administrative work including revising the constitution, annual club registration, and managing club account.
- Provided logistic support for events such as requesting event space, advertising, applying for funds and ordering food and drinks.

ELECTRICAL SUBSYSTEM DESIGNER | YORK UNIVERSITY SPACE ENGINEERING NANOSATELLITE DEMONSTRATION GROUP | 2015-2016

- Revised existing power distribution board PCB layout.
- Participated in creating payload handling the application on NASA opensource OS.
- Paticitated in battery qualification test.
- Gained elementary knowledge in embedded software development.

ELECTRICAL SUBSYSTEM DESIGNER | LASSAT CSDC YORKU TEAM (CANADIAN SATELLITE DESIGN CHALLENGE) | 2016-2018

- 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.

Research 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, HTTP.
- Extensive hands-on experience with sensors and data acquisition system.
- Excellent device characterization, testing and product prototyping skills