**RICHARD HU**

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**EDUCATION**

**Bachelor of Applied Science and Engineering Expected April 2017**

3rd Year Mechanical Engineering **CGPA: 3.78/4.00**

* Robotics and Mechatronics Minor. Specialize in Bioengineering and Mechatronics at University of Toronto St. George Campus.

**Machining Training March 2015**

George Brown College, Toronto, ON

**Grants and Awards**

* Shell Canada Limited Engineering Scholarship **July 2015**
* University of Toronto Excellence Award **June 2015**
* Dean’s Honour List **June 2014 to present**

**TECHNICAL SKILLS**

**Analysis Programs:** Arduino, ANSYS, ImageJ, ImageMagick, MiniTab, MATLAB, PSpice, SolidWorks,

**Microsoft Office:** Microsoft Word, PowerPoint, Excel, Publisher, Outlook

**Language:** Chinese, English

**JOB EXPERIENCE**

**Spray and Atomization Lab June 2015 to September 2015**

Independent Researcher

* Designed and built experiments from scratch for droplet breakup observation under jet impingement.
* Designed and developed Nikon DSLR, flash and solenoid valve synchronization system with Arduino.
* Gathered quantitative datum on droplet breakup modes, and performed statistical analysis of the datum using Minitab, ImageJ and Imagemagick.
* Discovered and classified 13 new droplet breakup phenomenon.

**New Start August 2014 to September 2015**

Tutor

* Tutored a small groups of students. Ranged from high school, to 2nd Year University of Toronto students in subjects such as English, Physics, Chemistry, and Calculus.
* Counseled students in defining study goals and formulate personal study methods.

**DESIGN EXPERIENCE**

**Windshield Wiper Mechanism Innovation September 2015 to December 2015**

3rd Year Mechanical Engineering Design Project

* Redesigned the conventional wiper mechanism and improved mechanism efficiency by 22%.
* Analyzed design with programs such as Autodesk, Solidworks and MATLAB.
* Initiate team design process, and coordinate team meetings with aim for efficiency and productivity.

**CNC Milling Machine September 2014 to December 2014**

2nd Year Mechanical Engineering Design Project

* Designed a CNC milling machine using SolidWorks in a team of 5.
* Led the group by coordinated workflow, plan schedule, internal milestones, and foster harmonious team dynamics.

**Cricket Canada Sunnybrook Park Pavilion Renovation January 2014 to May 2014**

1st Year APS112 Design Project

* Designed a 2nd floor’s plan for the renovation of Cricket Canada’s Toronto head quarter in a team of 5.
* Drove the team to meet deadline and make sure a rigorous design schedule was followed.
* Reviewed all the report written by the team to ensure client standards are met.

**EXTRA-CURRICULAR**

**University of Toronto Petro Challenge November 2015**

Competitor

* filler
* filler

**Skule Stress Release Club January 2015 to May 2015**

Vice President

* Organized and executed events in a team of 13 to relieve stress of engineering students.
* Collaborated with club president to apply funding at UTSU funding committee.

**University of Toronto Engineering Kompetition (UTEK) Junior Design January 2015**

Competition Award Winner/Team Leader

* Lead a team of 4 to compete against 26 other engineering teams to create a design and present.
* Received “Best Innovation Award” and “Best Prototype Award” certificates.

**Blue Sky Solar Racing June 2014 to August 2014**

* Participating Member
* I helped with small problems that BSSR had during their design cycle. My problem was to find a solution to how to minimize tire change time during the event.
* I had only finished my 1st year of engineering study at the time, and will return after I complete my 2nd year when I have more knowledge about mechanical engineering.

**University of Toronto Robotics Association Sumo Competition October 2014 to December**

* Team Mechanical Lead
* With a team of 4, we designed a small sumo robot and will make it out of sheet metal and code its AI. The robot will be used to compete with other teams.