

Marie Hébert

MECHANICAL ENGINEERING · GRADUATE STUDENT

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Skills and Qualifications

Computer Related Skills C++ · MATLAB · LATEX · PYTHON · VBA · SOLIDWORKS · AUTOCAD · CREO 2.0
Languages FRENCH · ENGLISH · SPANISH (BEGINNER TO INTERMEDIATE)

Education

MASc in Mechanical Engineering

Expected 2018

UNIVERSITY OF WATERLOO · WATERLOO, ONTARIO

- Supervised by Dr. Carolyn Ren and Dr. Jan Huissoon
- Microfluidics control system
- NSERC Tri-Agency CGS-M Scholarship (2016)
- Nanofellowship · Waterloo Institute for Nanotechnology (2016)

B. Eng. in Mechanical Engineering

2016

CONCORDIA UNIVERSITY · MONTRÉAL, QUÉBEC

- GPA 4.17/4.30
- The Mechanical Engineering Medal · Awarded to the most outstanding graduating student
- Norman D. Hébert Scholarship (2012-2016) · Highest Entrance Scholarship
- Dean's List Tier 1 for the academic year 2012/2013
- Dean's List Tier 2 for the academic year 2013/2014, 2014/2015 and 2015/2016

Experience

Teaching Assistant

September 2013 - April 2016

MIE DEPARTMENT OF CONCORDIA UNIVERSITY · MONTRÉAL, QUÉBEC

- ENGR 242 : Statics
- ENGR 243 : Dynamics
- ENGR 233 : Advanced Applied Calculus
- MECH 370 : Modelling and Analysis of Physical Systems
- ENGR 213 : Applied Ordinary Differential Equations
- ENGR 391 : Numerical Methods

NSERC Undergraduate Research Assistant for Dr. W.F. Xie

May 2015 - August 2015

CONCORDIA UNIVERSITY · MONTRÉAL, QUÉBEC

- Designed a rudimentary automated fiber placement end-effector with its control system
- Learned about serial robotics and computer vision
- Worked autonomously under minimal supervision and developed initiative

Industrial Automation Intern

January 2015 - April 2015

PCI AUTOMATISATION INDUSTRIELLE · MONTRÉAL, QUÉBEC

- Worked on interface and logics of various projects using InTouch, FactoryTalk, Crimson 3.0 and RSLogix 500
- Learned how to use the aforementioned programs quickly and autonomously

Engineer in Residence Assistant

October 2013 - August 2014

CONCORDIA UNIVERSITY · MONTRÉAL, QUÉBEC

- Designed, manufactured and implemented a locking mechanism for a pan brake
- Marked technical drawings from Capstone projects according to EDML standards

Lean Design Intern

October 2013 - August 2014

CAE INC. · ST-LAURENT, QUÉBEC

- Designed and produced technical drawings using Creo 2.0 in accordance with CAE's standards
- Managed different lean design projects to decrease manufacturing cost
- Prototyped new parts to validate changes and to submit for approval of test pilot

Volunteering Activities

Coop Mentor

May 2015 - August 2015

INSTITUTE OF CO-OPERATIVE EDUCATION OF CONCORDIA UNIVERSITY · MONTRÉAL, QUÉBEC

- Mentored two students in the process of applying for their first internship
- Reviewed and suggested improvements on their resume, cover letters and interview skills

Outreach Program Volunteer

June 2014 - October 2014

WOMEN IN ENGINEERING AT CONCORDIA UNIVERSITY · MONTRÉAL, QUÉBEC

- Participated and helped to prepare hydraulics workshop for Westmount Science Summer Camp
- Participated in workshop "Coding for Kids" introducing elementary students to coding basics

First Executive Member

2011 - 2012

GREEN TEAM OF CHAMPLAIN COLLEGE · SAINT-LAMBERT, QUÉBEC

- Raised awareness of environmental issues such as bottled water pollution
- Organized events in collaboration with the president and vice-president

Activity Volunteer

January 2011 - May 2011

FRIENDSHIP AND COMMUNITY TIES (F.A.C.T) AT CHAMPLAIN COLLEGE · SAINT-LAMBERT, QUÉBEC

- Participated in activities with students having learning disabilities

Special Projects

CAPSTONE : Vacuum Cold Spray · Control System

September 2015 - March 2016

CONCORDIA UNIVERSITY · MONTRÉAL, QUÉBEC

- Richard Cheng Design Award · based on originality and functionality of prototype, quality of reports and presentations, and overall academic achievement of each individual student in the team

ENGR 412 : Honours Research Project

Sept. 2015 – December 2015

CONCORDIA UNIVERSITY · MONTRÉAL, QUÉBEC

- Research paper about fractional order PID controller applied to Fanuc M-20iA
- Development of user manual for FANUC M-20iA

SAE Baja Team

November 2012 – February 2014

CONCORDIA UNIVERSITY · MONTRÉAL, QUÉBEC

- Manufactured parts using a lathe, a mill and a drill press
- Designed the brake assembly for the new callipers on *Solidworks*

Two-week Mathematics Workshop

November 2012 – February 2014

MONTRÉAL, QUÉBEC

- Researched and presented the proof of the transcendence of e

Extended Essay : The importance of counter steering in motorcycle turning

February 2011 – February 2012

CHAMPLAIN COLLEGE · SAINT-LAMBERT, QUÉBEC

- Research paper of 4000 words with experimental component exploring the physics at work behind motorcycle counter steering

Tree Distribution

November 2010 – May 2011

CHAMPLAIN COLLEGE · SAINT-LAMBERT, QUÉBEC

- Planned a distribution of free trees along with sensitization campaign on deforestation

Interests

Experience Abroad

MOTORCYCLE SOLO ROAD TRIP (CANADIAN WEST 2016, EAST COAST 2015) • NICARAGUA HUMANITARIAN TRIP (2012)

Sports

RUNNING : 21 KM (2016) • 10 KM (2014, 2015) • 7 KM (2014, 2015), CYCLING

Hobbies

MOTORCYCLING • LEARNING • COOKING • TRAVELLING