CONNOR SMITH

Candidate for BASc in Mechatronics Engineering
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SKILLS SUMMARY

- Familiar with autonomous vehicle principles, including state estimation and localization
- Knowledge of various Machine Learning techniques, including probabilistic classification
- SolidWorks and NX, for design, modelling and simulation, also able to machine parts
- Exposure to Natural Language Processing, and ability to speak and write in French and German, with small but increasing amounts of Italian and Mandarin in the mix
- Experience with C, C++, Python and MATLAB
- Demonstrated ability to self-learn and work independently

WORK EXPERIENCE

Machine Learning Engineer with **Thalmic Labs Inc.;**
Kitchener, Canada — May 2014 - August 2014 (4 months)

At Thalmic Labs, I worked on numerous aspects software responsible for gesture recognition and classification on the Myo armband, including parts of the benchmarking system used to evaluate the effects of various parameters and the performance of different methods.

Undergraduate Researcher with the **Singapore University of Technology and Design;**
Singapore, Singapore — August 2013 - December 2013 (4 months)

In Singapore, I developed and implemented a Kalman filter-based algorithm for estimating the mass of an electric vehicle in real time, solely using information available on the CAN bus, achieving an estimate accuracy of 1.5% absolute mass. Aspects of this project included data fusion, on-road testing and CAN bus characterization for the test vehicle (Mitsubishi iMiEV).

Undergraduate Researcher with the **Computational Neuroscience Research Group;**
Waterloo, Canada — January 2013 - April 2013 (4 months)

My main research focus was on the capacity of an autoassociative (cleanup) memory for symbolic manipulation realized in spiking neurons, and how to implement a learning rule to simulate the acquisition of new concepts. I also worked on using reinforcement learning algorithms to simulate rat behaviour in a virtual environment designed in Blender.

DSP Software Developer Intern at **Research In Motion Limited (now BlackBerry);**
Waterloo, Canada — May 2012 - August 2012 (4 months)

Using MATLAB, I worked on a system for analyzing the interference and sensitivity performance of signal processing algorithms against 3GPP specifications. I also was responsible for refactoring and optimizing various signal processing functions in C.

Junior Design Engineer at **P&P Optica Inc.;**
Waterloo, Canada — September 2011 to December 2011 (4 months)

I created parts, assemblies and technical drawings of various optical-mechanical components, such as shutter holders or grating wedges using SolidWorks. Working at a startup company also meant helping out wherever possible, including building a guard rail and prepping a Class 1000 clean room.

EDUCATION

Candidate for Bachelor of Applied Science — University of Waterloo, Waterloo, ON
Mechatronics Engineering (September 2010 - Present); 91% CGPA

AWARDS

2013-2014 Engineering Faculty/Staff Upper Year Scholarship

2012-2013 NSERC Undergraduate Student Research Award

2011-2012 Engineering Faculty/Staff Upper Year Scholarship

2010-2011 University of Waterloo President's Scholarship

ABOUT ME

I love travelling, experiencing new cultures and learning languages. My hobbies are reading (Dune and The Fountainhead are two of my favourite books), sketching (buildings mostly), staying active (cycling and running), and board games (Power Grid is a recent favourite). The prospect of tackling interesting problems, developing new skills and gaining new experiences is what gets me out of bed in the morning.