

Louis-Philippe Asselin

STUDENT · COMPUTER ENGINEERING

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Education

B.S. in Computer Engineering (Université Laval)

2014 - PRESENT

STUDENT (3RD YEAR)

- Faculty of Science and Engineering Research Fellowship (Summer 2015)

DEC Natural Sciences (Cégep de Sainte-Foy)

2014

Professional Experience

Internship, CRIUSMQ (Simon Duchesne, Ph.D.)

Summer 2016

MEDICS LABORATORY, CENTRE DE RECHERCHE DE L'INSTITUT UNIVERSITAIRE EN SANTÉ MENTALE DE QUÉBEC

- Refactor and adapt MATLAB and C code for parallel computing of a patch-based segmentation program analysing anatomic images of the human brain
- Create a prototype with GUI for structural modeling with graphs of neurodegeneration in Alzheimer's
- Develop a Linux MATLAB compiling environment

Internship, Research Assistant, LVSN (Jean-François Lalonde, Ph.D.)

Summer 2015 - 2016

UNIVERSITÉ LAVAL, COMPUTER VISION AND SYSTEMS LABORATORY

- Test and optimize optical flux algorithms to automate HDR images alignment
- Implement new algorithms for image comprehension and image synthesis
- Create Django website hdrdb.com
- Collaborate with graduate students

Developer and Assistant Technician

2010 - PRESENT

L'HEUREUX INC (PART TIME)

- Microcontroller programming with STM32F4 and Raspberry Pi: create refrigerator with transparent LCD display
- Repair industrial refrigerators and espresso coffee machines
- Manage online ads

Ultimate Frisbee Coach

2011 - 2014

COLLÈGE FRANÇOIS-DE-LAVAL (PSQ)

Bicycle Mechanic

2013

DEMERS BICYCLETTES ET SKIS DE FOND

Technical Skills

- **Languages:** Python, C, MATLAB, C++, ARM, Javascript, HTML, CSS, UML, English, French (native)

- **Tools:** Linux, STM32, Django, nginx, apache, Raspberry Pi, Arduino, Altium Designer, Latex, Photoshop, AdSense, Google

Honors & Awards

- Université Laval Faculty of Science and Engineering Research Fellowship, awarded for academic merit 2015
- 1st Position Logic Circuit Competition 2015 Université Laval
- Member of Quake, provincial Ultimate Frisbee team, participating to Panamerican and Canadian Championships
- Participation to Junior Canadian Ultimate Championships 2014
- Finalist mathematics competitions Pythagore. Awarded by M. Jean-Marie De Koninck

Personal Projects

- Smart alarm based on spectral analysis of night heart rate and custom DIY electrooculograph data
- Semi-automatic tomato growing hydroponics system. Microcontrollers, Raspberry Pi and homemade high power LED lights