Louis L. W. D. Pahlavi

PERSONAL DETAILS

Nationality French, Canadian

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TECHNICAL SKILLS

Theory Control theory and robotics, Networking, Optimization,

Algorithms, Machine learning

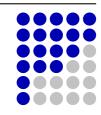
Build tools Makefile, CMake

Version control Git

Platforms Linux, Raspberry Pi, Arduino Boost, QT, CVX, Tensorflow

LANGUAGES

English French Italian German Czech Polish



EDUCATION

University of Toronto, BASc in Computer Engineering

September 2014-April 2019

- Minor in Robotics and Mechatronics
- Final Project: Distributed Formation Control of a Swarm of Unicycles
- 16 month internship between third and fourth years of studies
- Latest term 92.1% average (ranked 4 out of 173), 3.86/4.00 CGPA

PROGRAMMING LANGUAGES

C/C++ Python MATLAB Java



RESEARCH AND INDUSTRY EXPERIENCE

Systems and Control Engineering Intern

Verity Studios AG

May 2017-August 2018 Zürich, Switzerland

- Worked on improving the onboard control algorithms of swarms of quadcopters implemented in C++.
- Evaluated and characterized flight performance and effectiveness of calibration routines using Python.
- Serviced entertainment drone show systems overseas and oversaw flight operations for several weeks.

Researcher May 2016-August 2016

ETH Zürich Laboratory for Biosensors and Bioelectronics

• Developed the control and image processing software for a biosensor measuring protein interactions.

• Created a Graphical User Interface using Qt to control the actuators and interface them with various sensors.

Radio Frequencies Engineer

June 2015-September 2015

University of Toronto Institute for Aerospace Studies - Space Flight Laboratories

Toronto, Canada

Zürich, Switzerland

 Designed and simulated the early prototypes of a deployable antenna mounted on the NORSAT-2 maritime communications satellite (launched in 2017) in collaboration with the European Space Agency. **Researcher** May 2015–June 2015

University of Toronto Reconfigurable Antenna Laboratory

Toronto, Canada

 Created a MATLAB simulation to model a satellite's orbit and predict antenna radiation intensity on the surface of the Earth. Worked on antenna synthesis to find an antenna array for a given desired coverage area.

PROJECTS AND TEACHING

Capstone Team Lead

September 2018-April 2019

University of Toronto Faculty of Engineering

Toronto, Canada

- Implementing a fully distributed algorithm for the formation control of a swarm of wheeled robots in C++.
- Responsible for the design of the communication interfaces between onboard modules in C++ and Pvthon.
- Developed a Python simulation framework to test and tune the control algorithms.

Teaching Assistant

September 2016-December 2016

University of Toronto Faculty of Engineering

Toronto, Canada

 Taught APS100 – 'Orientation to Engineering' to first year Electrical and Computer Engineering students.

Wireless Communications Lead

September 2014-June 2016

University of Toronto Aerospace Team (Space Systems)

Toronto, Canada

- Designed, built and tested the antenna and communication module PCB, on a student-built nano-satellite.
- Presented our design at several Product Design Reviews and the Critical Design Review in Vancouver.

Ground School Instructor

September 2014-January 2015

330 Danforth Tech Royal Canadian Air Cadet Squadron

Toronto, Canada

 Coordinated and taught the pilot ground school course at 330 Danforth Tech Royal Canadian Air Cadet Squadron.

SCHOLARSHIPS AND AWARDS

Faculty of Applied Science and Engineering Dean's Honours List	2014-Present
• Gordon R. Slemon Scholarship - Awarded for engineering design and academic exce	ellence 2016
University of Toronto International Exchange Bursary	2016
University of Toronto Centre for International Exchange Award	2016
Royal Canadian Air Cadet Glider and Power Pilot Scholarships	2013, 2014