Louis L. W. D. Pahlavi

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EDUCATION

University of Toronto September 2014–Present

- *Bachelor of Applied Science Candidate in Electrical and Computer Engineering*, expected completion May 2019
- Minor in Robotics and Mechatronics
- Professional Experience Year
- 3.82 cumulative GPA, Faculty of Applied Science and Engineering Dean's Honours List

TECHNICAL SKILLS

- **Programming Languages:** Python, C/C++, MATLAB, Verilog HDL, NIOS II Assembler
- **Software and CAD:** Unix, SVN, Git, LaTeX, Tensorflow, Qt, Altium Designer, Ansys HFSS, SolidWorks
- **Languages:** French (native), English (native), Italian (fluent), German (intermediate), Czech (basic)

INDUSTRY EXPERIENCE

UAV Performance Engineer, Verity Studios AG May 2017–August 2018

- Interning at a startup working on the design and control of quadcopters for artistic performances

Radio Frequencies (RF) Engineer, Space Flight Laboratories June 2015–September 2015

- Designed a deployable VHF antenna that is to be mounted on the NORSAT-2 maritime communications satellite.
- Cooperated with the University of Toronto Institute for Aerospace Studies Space Flight Laboratories (UTIAS-SFL), the Norwegian government and the European Space Agency (ESA) for integration on the satellite.

RESEARCH EXPERIENCE

Researcher, ETH Zürich Laboratory for Biosensors and Bioelectronics (LBB) May 2016–August 2016

- Collaborated in the development of a diffractive optical biosensor setup to measure the density of certain proteins in liquid samples, which included stepper motors, optical sensors, a camera, a Raspberry Pi and an Arduino.
- Created a Graphical User Interface (GUI) using PyQt to control the setup and image processing algorithms.

Researcher, University of Toronto Reconfigurable Antenna Laboratory May 2015–June 2015

- Developed 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

Teaching Assistant, University of Toronto Faculty of Engineering September 2016–December 2016

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

Communications Lead, University of Toronto Aerospace Team Space Systems September 2014–June 2016

- Worked on a student-built nano-satellite whose mission is to carry out astrobiology experiments.
- Designed, built and tested the communication module including the antenna, diplexer and transceiver PCB.
- Presented at several Product Design Reviews (PDR) and the Critical Design Review (CDR) in Vancouver.

SCHOLARSHIPS AND AWARDS

- **Gordon R. Slemon Scholarship** – Awarded for engineering design and academic excellence 2016
- **University of Toronto International Exchange Bursary** 2016
- **Center for International Exchange Award** 2016
- **Royal Canadian Air Cadet Glider and Power Pilot Scholarships** 2013, 2014

PUBLICATIONS

- A. Frutiger, S. Bischof, **L. Pahlavi**, V. Gatterdam, Y. Blickenstorfer, Janos Vörös and C. Fattinger. ”NALIMA - Coherent detection of single molecule recognitions: The sensitivity limit of focal molography”. Submitted for Publication.

RELEVANT COURSES

- **Computer Science:** Algorithms and Data Structures, Machine Learning and Inference Algorithms
- **Controls and Communications:** Robot Modeling and Control, Real-Time Computer Control
- **Electronics and Computer Hardware:** Linear Circuits, Electronics, Digital Systems, Computer Organization