

Louis Pahlavi

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Nationality French, Canadian | Permit B



About Me

I am most interested in subjects that combine programming and mathematics such as optimization, machine learning and control theory. I am strongly detail oriented and work best in small but dedicated teams.

Always passionate about aviation, I obtained my private pilot's license at age 16. I also love travelling, skiing and learning new languages.

Languages

Native	French, English
Intermediate	German, Italian
Beginner	Polish

Technical Skills

Python	C/C++	MATLAB	SQL
DevOps	Docker, Kubernetes, CI/CD		
Management	Git, Gerrit, Jira		
Operating Systems	Linux, macOS		
Frameworks	PyTorch		

Education

ETH Zürich

M.Sc. IN ROBOTICS SYSTEMS AND CONTROL

- Focus: Deep Learning / Machine Learning, Mathematical Optimization
- Excellence Scholarship and Opportunity Program

Zürich, Switzerland

Sep. 2019 - May. 2020

University of Toronto

B.A.Sc. IN COMPUTER ENGINEERING

- High honours (approx. top 5 percent)
- Minor in Robotics and Mechatronics

Toronto, Canada

Sep. 2014 - Apr. 2019

Lycée Français de Toronto

FRENCH BACCALAURÉAT GÉNÉRAL

Toronto, Canada

Sep. 2011 - Jun. 2014

Industry Experience

Archlet AG

SOFTWARE ENGINEER (PART TIME)

- Deployed and maintained a web application with Kubernetes on Microsoft Azure.
- Maintained business logic engine in Python and deployment scripts using Bash.

Zürich, Switzerland

Sep. 2019 - Jun. 2020

DATA SCIENTIST

- Developed a Python optimization engine making extensive use of packages such as Pandas, Numpy and SQLAlchemy.
- Designed the architecture of a distributed and containerized cloud-based web application.
- Collaborated with an external agency on the development of the user interface.
- Deployed a proof of concept application on Microsoft Azure using Docker Swarm.

May 2019 - Aug. 2019

Verity Studios AG

SYSTEMS AND CONTROL ENGINEERING INTERN

- Worked on control and estimation algorithms for swarms of quadcopters in C++.
- Evaluated flight data using Python and improved drone production pipeline.
- Developed offboard user interface applications implemented in C++.

Zürich, Switzerland

May. 2017 - Aug. 2018

UTIAS Space Flight Laboratories

Toronto, Canada

RADIO FREQUENCIES ENGINEER

Jun. 2015 - Sep. 2015

- Designed and simulated early prototypes of a deployable antenna mounted on the NORSAT-2 maritime communications satellite.

Research Experience

ETH Zürich Advanced Interactive Technologies Lab

Zürich, Switzerland

RESEARCH SCIENTIST

Jun. 2021 - Jul. 2021

- Investigated performance of master thesis work in light of newly published datasets using PyTorch.

MASTER THESIS STUDENT

Sep. 2020 - Oct. 2021

- Designed, implemented and analyzed a complex deep learning pipeline using PyTorch for semi-supervised segmentation.
- Proposed and analyzed a semi-supervised pipeline to make use of unlabelled data for image segmentation.
- Introduced and evaluated a novel selective segmentation method to make use of cross-domain data.
- Interfaced with several large scale datasets containing in the millions of images.

ETH Zürich Biosensors and Bioelectronics Lab

Zürich, Switzerland

SUMMER RESEARCH STUDENT

May. 2016 - Aug. 2016

- Developed the control and image processing software for a biosensor measuring protein interactions using fluids in Python.

Teaching Experience

University of Toronto Faculty of Engineering

Toronto, Canada

TEACHING ASSISTANT

Sep. 2016 - Dec. 2016

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

330 Danforth Tech Royal Canadian Air Cadet Squadron

Toronto, Canada

PILOT GROUND SCHOOL INSTRUCTOR

Sep. 2014 - Jan. 2015

- Coordinated and taught the pilot ground school course at 330 Danforth Tech Royal Canadian Air Cadet Squadron.
- Lead several of my students to be nationally selected to earn their pilot's license.