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
Management	CI/CD, Git, Gerrit, Jira
Platforms	Linux, macOS
Frameworks	PyTorch

Education

ETH Zürich
Zürich, Switzerland

M.Sc. in Robotics Systems and Control — *Sep. 2019 - May. 2020*

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

University of Toronto
Toronto, Canada

B.A.Sc. in Computer Engineering — *Sep. 2014 - Apr. 2019*

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

Lycée Français de Toronto
Toronto, Canada

French Baccalauréat Général — *Sep. 2011 - Jun. 2014*

Industry Experience

Archlet AG
Zürich, Switzerland

Software Engineer (Part Time) — *Sep. 2019 - Jun. 2020*

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

Data Scientist — *May 2019 - Aug. 2019*

- Developed a Python optimization engine for procurement analytics.
- Designed the architecture of a distributed cloud-based web application.
- Collaborated with an extrenal agency on the development of the user interface.
- Deployed a proof of concept containerized application on Microsoft Azure.

Verity Studios AG
Zürich, Switzerland

Systems and Control Engineering Intern — *May. 2017 - Aug. 2018*

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

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

- Master Thesis: *Semi-Supervised Egocentric Segmentation*
- Designed, implemented and analyzed a complex deep learning pipeline using PyTorch.
- Proposed and evaluated a semi-supervised pipeline to make use of unlabelled data for human hand segmentation.
- Leveraged a novel selective segmentation pipeline to make use of generic segmentation data.

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.