Pierre **Chassagne**

Robotic Software Engineer · French · Driving license · B permit (CH)

Av. de Sévelin 13f, 1004 Lausanne VD, Switzerland

(+33) 6 48 70 79 00 | pierrechass@gmail.com | pierrechass | pierre-chassagne

As a recently graduated robotic software engineer, I want to apply my strong problem-solving and software programming skills to contribute to innovative and impactful projects. My dedication to excellence, my adaptability and collaborative nature, make me well-positioned to thrive and make valuable contributions in a dynamic and forward-thinking environment.

Skills

Programming **Python (proficient)**: PyTorch, Pandas, NumPy, Sklearn, matplotlib, **C++ (good)**, **Typescript (basic)**: NodeJS, React, **LaTeX**

Professional Problem Solving, Team Spirit, Analytical Skills, Creative Thinking, Interpersonal Skills

Languages French (native), English (C1)

Education

Msc - Robotic Engineering

Ecublens VD, CH

EPFL (Swiss Federal Institute of Technology Lausanne) *Sept. 2021 - Jul. 2023*

- Average grade of 5.23/6.
- Minor in Management, Technology and Entrepreneurship (MTE)
- **Main topics**: Control algorithms (MPC, LQR, Kalman, ...), Sensor integration, Path Planning (A*, cCAPT, ...), SLAM, Computer vision, Machine Learning (SVM, k-means, CNN, ...), ...

Bsc - Electrical and Electronic Engineering

Ecublens VD, CH

EPFL (Swiss Federal Institute of Technology Lausanne) *Sept. 2017 - Jul. 2021*

- One year academic exchange at Heriot-Watt University in Edinburgh, Scotland
- **Main topics:** Basic sciences (Physic, Analysis, ...), Electronic, Electromagnetic, Signal Processing, Control Systems, ...

Experiences & Academic Projects

Master's Thesis - Sycamore Lab

Ecublens VD, CH

Constrained Inverse Reinforcement Learning: challenges and solutions of a real world implementation *March 2023 - Jul. 2023*

Grade : 5.5/6 - Supervisor : Andreas Schlaginhaufen - Professor : Maryam Kamgarpour

- **Hardware**: Jetbots, Jetson Nanos, Optitrack tracking system
- **Software**: Ubuntu, Python, ROS2, PyTorch, Gym
- Implementation and design of an entire Reinforcement Learning (RL) framework of 6000+ lines of clean, tested and commented Python code.
- Design of two algorithms based on state of the art methods (DQN, iQ-Learn, ...) to perform CIRL.

Insolight SA

Renens VD, CH

R&D intern *Sept. 2022 - March 2023*

- **Hardware**: Raspberry Pi, Modbus sensors, Electrical motors, PV modules
- **Software**: Python & C++
- Implementation of a failure detection algorithm for extreme meteorological conditions using Kalman filtering to fuse the sensors measurements.
- Implementation of the calibration and sun tracking algorithm for the Hiperion project, using C++.

Sycamore Lab

Ecublens VD, CH

Semester Project & Summer internship *Feb. 2022 - Sept. 2022*

Grade : 5.5/6 - Supervisor : Dr. Tony A. Wood - Professor : Maryam Kamgarpour

- **Hardware**: Jetbots, Jetson Nanos, Optitrack tracking system
- **Software**: Ubuntu, shell, Python, ROS & ROS2, Acados
- Development of a ROS2 framework enabling multi-agent coordination and control, consisting of 10,000+ lines of documented and well-structured code, which remains in active use.
- Implementation of control and path planning methods (MPC, cCAPT, Pure Pursuit, LQR).

Associative Experiences

180°C

EPFL, CH

Founder | President | Sponsoring *Jul. 2021 - Sept. 2022*

- 180°C is born from my passion of cooking. Its goal is to educate students to eat better, healthier and more sustainable.
- Management and leadership skills to drive a team of 12 people towards the same objectives, helping them successfully achieve their works.
- Creation of a cookbook with a print run of 3,000 copies.

Forum EPFL - 39th edition

EPFL, CH

Company relations | Organising committee *Jan. 2020 - Dec. 2021*

- Forum EPFL is one of Europe's largest recruitment fair, held annually to connect EPFL students with over 210 companies and 120 start-ups.
- Canvass relevant and attractive companies
- Communication and organisational skills to ensure a perfect link between companies and the rest of the committee.