

Philippe FORERO

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Education

EPFL, École Polytechnique Fédérale de Lausanne, Lausanne

Master in Robotics and Neuroprosthetics

Sept 21 - July 24

Bachelor in Microengineering

Sept 17 - July 21

Work experience

.NEUROSTORE | Student researcher at CHUV

2024

Development of high-fidelity visualization tools for personalized computational models of patients' spinal cords

ROLEX | Data Science Intern

2023

Identification of commercial references from a photo, research on optimization of training dataset

EPFL | Science Promotion Service (SPS)

2022

Animation of a programming workshop, Welcoming families during events

RIANS | Computer and industrial systems networks assistant

2021

Manage and improve industrial network and respond to user's issues

Academic projects

- Group project with the Thymio robot (Vision modules and shortest path planning)
- Obstacle course with Crazyflie UAV
- Simulation of several systems in order to control them : Salamander Robotica, Atlas, A1-Unitree
- Insertion tool for a visual prosthesis for patients suffering Glaucoma
- Development of a mechanical clock

Technical competencies

- Robotics (Programming in Python, MATLAB, C++ on different robots)
- Neuroprosthetics (Fundamentals bases in neurosciences, human-machine interfaces)
- Data Science (Expertise with Dataiku DSS platform, Imaging project using Tensorflow, Evolutionary Robotics (Robogen))
- Image processing (Drosophila brain image processing in the Neuroengineering Lab of Prof. Ramdya)
- Control systems (Modeling and analysis of dynamic systems using controllers: PID, LQR, MPC)
- Mechanical engineering (Good knowledge of the CAD software: CATIA V5)
- Production management (Demand, supply, inventory management, certification on anyLogistix software)
- Electronics (Amplifiers, filters, function generators, actuators and electromagnetic systems)
- Embedded systems (Logic circuits, Arduino, MSP 432)
- Materials and Manufacturing technologies

Languages

French : Mother tongue

English : C1

Spanish : B2

Interests

Triathlete - Cyclotour, 20km Lausanne

Piano

Photography

Aviation