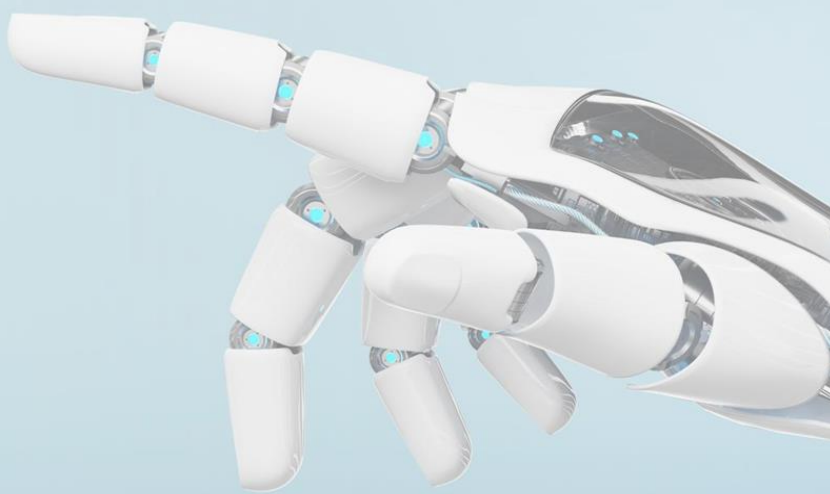




Lilian Laporte



▼ Education

- 09.2022 **M.Sc. in Robotics, Systems & Controls**
05.2025 **ETHZ - Zürich, Switzerland**
- 09.2019 **B.Sc. in Microtechnics**
07.2022 **EPFL - Lausanne, Switzerland**
Diploma: Bachelor of Science BSc in Microtechnics (GPA: 5.05/6)
- 08.2021 **Exchange Program - Electrical Engineering, Mathematics and Computer Science**
07.2022 **TUD - Delft, Netherlands**
- 09.2012 **High school and Secondary school**
06.2019 **Lycée St. François de Sales - Ville-la-Grand, France**
(#1 in France, *Le Monde*, 2015)
Diploma: French Baccalaureate S (mathematical speciality), *with distinction*

▼ Work Experience

- 02.2024 **Robotics Intern - MESH AG - Birr, Switzerland (Full-time)**
09.2024
 - Developed a robotic system to automate rebar stacking, improving efficiency and accuracy for construction suppliers.
 - Practical experience in Computer Vision, ROS, and robotic software engineering while enhancing the app's functionality and my full-stack skills.
 - **Side project:** RL pipeline in Mujoco to derive an optimal stacking policy based on the shape of the rebar.
- 08.2022 **Machinist - Rolex, Bracelet Dpt - Plan-les-Ouates, Switzerland (Full-time)**
 - Managed a 3-axis CNC for manufacturing bracelet stands and polishing them.
 - Firsthand experience in a production chain, understanding key challenges in industrial manufacturing within a multinational company.
- 10.2021 **Lab assistant - AIR Lab - Delft, Netherlands (5h/week)**
05.2022
 - Assisted a PhD student in developing code for controlling a robot in the retail supply chain, from warehouses to customers.
 - Initial experience in robotics programming using high-level languages.
- 07.2019 **Electrical Service Assistant - Rolex, Energy Dpt - Plan-les-Ouates, Switzerland (Full-time)**
 - Processed career data in the energy sector and finding solutions for electrical issues in a factory of 2000 employees.
 - Hands-on experience with a variety of tasks, enhancing my versatility.
- 11.2015 **Internship - Somfy, R&D Dpt - Cluses, France (Full-time)**
 - Explored various engineering sectors within an international firm, from prototyping to production. Gained insight into the importance of communication and collaboration between different departments.

CONTACT INFORMATION

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Email: llaporte@ethz.ch
Nationality: French
Birth date: 08/07/2001
🔗 Github: LilianLaporte

TECHNICAL SKILLS

- **Programming:**
 - Python: IsaacLab, mujoco, pytorch, YOLO, OpenCV
 - C/C++: GTKmm
 - Matlab: yalmip, Simulink, OpenCV
 - ROS Noetic
 - Docker
 - Javascript
 - HTML/CSS
 - Assembler
- **CAD/Simulation:**
 - Catia
 - Solidworks
 - Blender
 - Abaqus

SOFT SKILLS

- Team communication
- Problem-solving
- Project management
- Creativity
- Ownership

LANGUAGES

- **French** : Native language
- **English** : Level C1
- **German** : Level B2

▼ Projects

- 11.2024
05.2025 **Master's Thesis - Robotics Systems Lab (RSL) - ETHZ**
"Stunts with a quadruped on wheels in challenging terrains"
Trained in a simulator (isaacSim) a wheeled quadruped robot to swing in a halfpipe and perform aerial stunts (e.g., flips) using various reinforcement learning techniques. Deployed and tested the resulting policy on a real robot.
- 09.2023
02.2024 **Semester Project - IBM/Acoustic Robotics Systems Lab (ARSL) - ETHZ**
"Autonomous Ultrasound-Driven Manipulation of Microrobots with Reinforcement Learning Enhanced by Real-Time ultrasound Imaging Feedback"
Developed a computer vision pipeline for a real-time ultrasound imaging feedback system to control microrobots within the body. Created vein prototypes to demonstrate the concept and control the microrobots.
- 10.2022
02.2024 **ARC Robotics Hiwi - ETHZ - Zürich, Switzerland**
Assisted the team in improving an automatic waste sorting system by implementing a new computer vision pipeline for waste tracking, developing a simulation of the entire system in Gazebo, and enhancing the presorting stage.
Publication: Esquivel Estay, et al. (2024-04-08). *Dataset and Analysis of River Waste Pollution in the Limmat River, CH, during a One-day City Festival (Zurich Street Parade, 2023)* [White paper].
- 09.2020
07.2021 **Xplore Robotics Engineer - EPFL - Lausanne, Switzerland**
Responsible for designing and building the forearm of a Mars rover as part of an inter-university competition. Gained experience in overcoming real-world challenges in the development and fabrication of a solution with demanding requirements.
Awards: - #3 at European Rover Challenge (ERC) for our first year of creation
- Special prize for handling task
- Special prize for science task

▼ Reference

Raphaël Marwalder - Production Manager - Rolex

Phone number: +41799047757

Ammar Mirjan - CEO - MESH AG

Email address: mirjan@mesh.ch

INTERESTS

- Downhill/Cross-country skiing
- Scuba diving (PADI Open Water)
- Climbing
- Rap/Rnb music