



About

[in/oscar-gentilhomme](https://in.linkedin.com/in/oscar-gentilhomme)

ogentilhomme@ethz.ch

Bouldering & Ski Touring

Travel & Sketch

Languages

- French: Native
- English: Fluent
- German: Basic

Hard Skills

- Python, ROS, SQL, Pytorch
- Computer Vision (SLAM)
- ML & DL (SSL, Segmentation)
- CATIA, FUSION 360, AutoCAD
- COMSOL
- IoT Management, Electric Systems

Strengths

- Pro-active
- Curious
- Open to Experience

Oscar Gentilhomme

M.Sc. ROBOTIC ENGINEERING, ETH ZURICH

Dedicated masters student wishing to apply his robotic/ML skills on biotech solutions to real-world problems. Seeking an exciting environment in a multidisciplinary team.

Education

Harvard, MGH - Master Thesis

Since Jun 2025 [Martinos Center for Bio-Imaging](#) Harvard - MGH, Boston (US)
Researching the limitations of self-supervised learning methods in biomedical imaging, with a focus on breast cancer DBT scans.

ETH Zurich - M.Sc. Robotics, Systems and Control

Since 2022 [ETH](#) Zurich (CH)
Computer Vision, Machine Learning, Robot Dynamics, Computational Control, Planning and Decision Making for Autonomous Robot, Data Management.

KTH - Student Exchange Program

2020 - 2021 [KTH](#) Stockholm (SE)
Hybrid and Embedded System, FEM, Rapid Prototyping.
EPFL - B.Sc. Mechanical Engineering
2018 - 2021 [EPFL](#) Lausanne (CH)
Engineering Science, CAO.

Work experience

Semester Project - Biomedical Imaging

Nov 2024 - Mar 2025 [IMAI](#) (CH)
Cancer diagnostics with 3D histology technology
• Tasked with developing a machine learning pipeline for processing and analyzing 3D biomedical images, focusing on detecting cancerous cells.

Research Assistant

Aug 2024 - Mar 2025, [CVG](#), [ETH](#) Zurich (CH)
• Conducted research in egocentric visual-inertial SLAM; co-authored a paper accepted at [ICCV 2025](#).
• Collaborated with [META](#) on benchmarking city-scale SLAM datasets.

Application Engineer Internship

Sept 2023 - Mar 2024 [Sensirion Connected Solutions](#) (CH)
IoT Solution for Methane Monitoring
• Implemented a wind sensor for software development and managed (>100) IoT devices for data analysis.

Product Development Internship

Jul 2021 - Nov 2021 [Taaroa](#) (CH)
Hydrofoil with onboard Artificial Intelligence
• Developed the hardware and upkeep of an embedding system. Waterproofed electronic system to support salty and wet conditions.

Publications

Benchmarking Egocentric Visual-Inertial SLAM at City Scale

Co-author, [ICCV 2025](#) (Highlight Paper)

DINO-DBT: Towards Foundation model based analysis of Digital Breast Tomography

Co-author, [Radiology: Artificial Intelligence](#) (in preparation)

Extra curriculum

Project Manager - Software Engineer

Sept 2022 - Apr 2025 [ARC \(Autonomous River Cleanup\)](#) (CH)

- Assembled and managed a team of 8 through the development of a camera for waste-tracking in rivers, [The SARA Project](#)
- Won 2'000 CHF at [The Sustainable Innovation Competition \(SIC\)](#).
- Implemented of a pipeline to track waste on a conveyor belt, enabling robotic arms to locate and handle waste materials.