

# SIMONE LICCIARDI

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Zürich, CH

## EDUCATION

### MSc in Computational Engineering (Robotics specialization), ETH Zürich

09/2025 – 07/2027

Coursework in Robotics-oriented Optimization, HPC and Simulation, Control and RL.

- **Ranked 1st** in competition within 450-student graduate class; achieved fastest (2.5 times quicker than runner-up) optimal decision-making algorithm.
- Developing prototypes on the side. Currently, a self-balancing box touching ground on an vertex.

### BSc in Mathematical Engineering, Politecnico di Milano

09/2022 – 07/2025

Coursework in physics- and data-driven Scientific Computing and Modeling for Engineering.

- **Ranked 1st** within 345-student cohort for 2+ years with **GPA 30/30** (9 honours, 17 perfect marks).
- Additional graduate coursework in Deep Learning and Neural Networks.
- Independent study (faculty-supervised) of Stochastic Processes.
- Independent study (unsupervised) of Convex Optimization.

### BSc Exchange Programme, New York University

01/2025 – 05/2025

Coursework in PDEs, Fourier Analysis for PDEs (Spectral Computational Methods), Financial Mathematics.

- Auditor to **PhD-level** coursework in Continuous-time Stochastics.
- *Admission*: 2% rate, first-ever from my course.

### Math & Physics Competitions (High School), Liceo Scientifico A. Volta

09/2017 – 07/2022

- National finalist in Physics and Mathematics competitions.
- Trained the school's math team, winner of 3 out of 5 of the latest national competitions.

## PROJECTS

### Undergraduate Research, Independent

09/2024 – 12/2024

- *Research Topic*: framing gradient-based optimizers as ODE discretization schemes, to determine optimal algorithms for robustness-sensitive optimization problems.
- Conducted independently and produced a report accessible [here](#).

## SELECTED COURSES

### 2025 M2L Summer School, M2L Summer School

2025, 46h

Google DeepMind's programme in ML intended for top European graduate researchers.

- *Admission*: 14% rate.

### 2024 M2L Summer School, M2L Summer School

2024, 46h

### Italian preparatory Spring programme for IPhO, Scuola Normale Superiore di Pisa

2022, 48h

### Summer Program in Competitive Mathematics, Unione Matematica Italiana

2021, 32h

## EXPERIENCE

### Ambassador & Mentee, Lead The Future Mentorship

09/2023 – 09/2025

LTF is the largest Mentorship programme for STEM Excellence in Italy, and a project I believe in.

- *Impact*: highest no. of admitted referrals in 2024 (6% of total), while Ambassador at PoliMi.
- *Admission*: 13% rate.

### Team Leader, AIM - Mathematical Engineers Association

11/2022 – 05/2024

AIM is a student association with over **3000 members**.

- Led up to **16 people** on core programs, achieving over 200 participants.
- *Impact*: over 300 new memberships, achieving the highest annual growth to date.

## EXTRA

**Programming**: Python (numpy, scipy, pytorch, control), Git, C++, MATLAB, Linux.

**Interests**: The Economist, Motorsports, Rowing, Hiking, Skiing.