

# SIMONE LICCIARDI

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## EDUCATION

- BSc Degree in Mathematical Engineering**, Politecnico di Milano 09/2022 – 07/2025
- Ranking **top 1%** in 345 students - **GPA 29.66/30** (9 of 21 exams with honours).
  - Graduate** coursework (additional) in *Deep Learning and Neural Networks*.
  - Independent study under faculty supervision of Stochastic Processes.
- Coursework in (**Applied Maths**) LP and Graph Programming, Convex Optimization, (graduate) DL, Numerical Analysis, ODEs and PDEs Simulation, Generalized Linear Models, (**Pure Maths**) Real, Complex, Functional analysis, Probability Theory, Statistics Theory (**Engineering**) Automatic Control, C programming, Electronics and Physics.
- MSc Degree in Computational Science and Engineering**, ETH Zurich From 09/2025
- US Exchange Semester**, New York University 01/2025 – 05/2025
- First-ever student from my course selected for this programme (on merit, top 2%).
  - Auditor to **PhD** coursework in Stochastics.
- Coursework in Mathematical Finance (Kolm), Fourier Analysis for PDEs (Vicol), PDEs. Auditor to graduate Probability Theory II (Bourgade).
- M2L 2025 Summer School**, M2L Summer School 09/2025
- M2L 2024 Summer School**, M2L Summer School 09/2024
- M2L is a Deepmind ML programme, meant for top European graduate researchers.  
Lecturers from top schools and industry research: see [program](#) and [speakers](#) for more information.
- Selected as undergraduate (**5.6%** of participants were BSc).
  - Independently prepared in Machine Learning (with Stanford EE104 recorded lectures).
- Math & Physics Competitions (High School)**, Liceo Scientifico A. Volta 09/2017 – 07/2022
- National finalist in Mathematics and Physics competitions.
  - Trained the school's math team, winner of 3 out of 5 of the latest national competitions.

## EXPERIENCE

- Mentee, Ambassador**, Lead The Future Mentorship 09/2023 – Present
- LTF is a project I believe in. It is also the leading STEM excellence mentorship in Italy (1200+ members, 10% admission).
- Working on a partners' network to move our activity to a national scale.
  - Implemented onboarding for enhanced mentorship retention.
  - Serving as **Student Ambassador** at PoliMi (highest no. of referrals in 2024).
- Team Leader**, AIM - Mathematical Engineers Association 11/2022 – 05/2024
- AIM is a student association with over **3000 members**.
- Developed database infrastructure and feedback pipelines for AIM Mentoring program.
  - Designed form and analysed data for [AIM Job Market report](#) (300+ records).
  - Led up to **16-person teams** on AIM's core programs, consistently achieving 200+ participants.
  - Increased memberships by over 300 people, marking the highest annual growth to date.
- Undergraduate Research (Optimization)**, Independent 09/2024 – 12/2024
- Due to M2L I got very interested in continuous-time modeling for gradient-based optimizers.
- Independently carried extensive literature review on the topic.
  - Produced a thesis proposal following academic literature standards, available [here](#).

## EXTRACURRICULA

- Reinforcement Learning**, AIM - Mathematical Engineers Association 2024, 15h
- Tenured by **Google Deepmind**, **ETH** and **EPFL** researchers.
  - MDP, Tabular RL, Deep RL, Model-based RL, Policy Gradient, SOTA
- Scaling Python Projects**, AIRIC - Industrial Research in AI 2024, 10h
- Spring Program in Competitive Physics**, Scuola Normale Superiore di Pisa 2022, 48h
- Summer Program in Competitive Mathematics**, Unione Matematica Italiana 2021, 32h
- Programming Languages** Python (mip, cvxpy, numpy, tensorflow), C, R, SQL, MATLAB,  $\LaTeX$ .  
English (C2), Italian (Native).
- Interests** Personal Finance, The Economist, Autosports, Rowing, Skiing, Competitive Mathematics.
- Volunteering** Marketing Team for Cancer Research Campaign, Blood Donor at HSR, Peer Tutor at L.S.S.A Volta