

# Giovanni Zhang

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*Graduate Student currently pursuing a Quantum Engineering Master's Degree at ETH Zurich with great passion towards quantum technologies.*

## EDUCATION

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### ETH Zurich

**Zurich, Switzerland**

MSc in Quantum Engineering, D-ITET/D-PHYS

*09/2023–Present*

- 5.75/6
- Topics:
  - *Solid State Theory, Semiconductor Nanostructures, Quantum Dots, Superconducting Qubits, High Frequency Design Techniques*
  - *Quantum Information Processing, Quantum Optics, Quantum Measurements and Optomechanics, Quantum Transport*

### EPFL(École polytechnique fédérale de Lausanne),

**Lausanne, Switzerland**

Exchange Student, Physics department

*09/2022–02/2023*

- 5.75/6
- Exchange semester during Bachelor's.

### Politecnico di Milano (PoliMi)

**Milan, Italy**

BSc Physics Engineering

*09/2020-06/2023*

- *110 cum laude/ 110*
- Student's council representative of Department of Physics

### Liceo Scientifico Statale "Enrico Fermi"

**Padua, Italy**

Traditional Scientific Program

*09/2015-06/2020*

- Diploma Scientifico: 100/100.
- Math/Physics Olympiad, Zero Robotics competition.

## AWARDS AND SCHOLARSHIPS

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- **ETH Quantum Hackathon Winner, 2024**
  - "Quantum Neural Network for designing Differentiable Quantum Circuits to solve PDEs using PyTorch and Qadence" proposed by PASQAL
- **"Ermenegildo Zegna Founder's Scholarship", 2023**
  - National scholarship for 60 recipients consisting of 15'000 CHF/year roughly of funding
- **"Excellence fellowship" recipient from EPFL 2023**
  - Fellowship offered to the top 3% of applicants for a Master Program at EPFL, which I rejected in order to pursue education at ETH.
- **"Best Freshman Prize", 2021**
  - Yearly prize given to the best performing freshmen (roughly 200) of Politecnico di Milano.
- **ZeroRobotics 2018-2020**
  - National Winner (Campionato Italiano), International Finalist with EX-AEQUO 3<sup>rd</sup> place(2018), International 4th place (2019).
- **Math Team Olympiad 2018-2019**
  - National Finalist (top 15), Regional Gold Medal.

## EXPERIENCE

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### Intern

Quantum Motion Technologies, London

02/2025-08/2025

- Upcoming internship on silicon based spin qubits.

### Graduate Research Student

Quantum Device Lab (prof. Wallraff), ETH Zurich

09/2024-01/2025

- “Mitigating Two Level Systems in Superconducting Qubits”
- Designed 3Di chips for TLS mitigation with on-chip electrodes and low pass filters.

### Summer Intern

Quantum Coherence Lab (prof. Zumbuhl), University of Basel (Basel)

07/2024-09/2024

- Assisted in preparing the setup and ran measurements on Intel’s Tunnel Falls chip.
- Hands-on experience with BEOL processing, dry/wet dilution refrigerators, QCoDes, and silicon spin qubits.

### Semester Project

Prof. Ensslin’s Nanophysics Group, ETH (Zurich)

04/2024-06/2024

- COMSOL Simulation of the potential landscape in a MAT4G-based Josephson Junction.
- Characterization of new MATBG-based devices.

### Project Intern

AQUA Lab, Microcity (Neuchatel)

12/2022-03/2023

- Characterization and design of a SPADs based sensor to recognize different type of roads based on their dangerousness through polarization contrast.

### Summer Intern

INFN Legnaro, Padova( PD)

06/2019-08/2019

- Theoretical study of Radon's radioactivity and Cosmic rays properties and data analysis.

## SKILLS

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- MATLAB, Python, ANSYS, COMSOL, and making tiramisù.