Pietro RONCHETTI

PhD student in computer networks, MSc in quantum engineering

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Education

2024–present	PhD student in the Networked Systems Group, **ETH Zürich**, Switzerland Advised by Prof. Laurent Vanbever. Currently researching network verification and satellite networks. I have first-authored publications at top-tier venues, including an award-winning one. In the fall semesters, I give a lecture on space networking for master's students.
Spring 2023	Exchange semester, **UT Austin**, USA Focus: Cryptography and machine learning.
2021–2024	MSc in quantum engineering, **ETH Zürich**, Switzerland Graduated *with distinction*. Specialization: Quantum information theory and classical networks.
2017–2020	BSc in electrical engineering and information technology, **ETH Zürich**, Switzerland Graduated in the *top 10% of the class*. Specialization: Signal processing and information theory.

Publications

Pietro Ronchetti, Tibor Schneider, and Laurent Vanbever
When static verification is not enough: revealing BGP bugs at runtime
ACM SIGCOMM. Denver, CO, USA (Aug 2026)

Pietro Ronchetti, Sushovan Das, Laurent Vanbever, and Stefano Vissicchio
Best Paper *All But Regular: Revisiting the Starlink Constellation*
LEO-NET at ACM SIGCOMM. Denver, CO, USA (Aug 2026)

Experience

Sep 2022–Jan 2023 — Research intern, **Huawei**, Germany

I developed part of the mathematical formalism for multi-mode quantum key distribution. This is a critical step in proving the security of such systems.

Sep 2020–May 2021 — Engineering assistant, **MagnebotiX AG**, Switzerland

MagnebotiX builds electromagnetic systems that research labs around the world use to steer magnetic microrobots.
I developed the control software for these systems.

Sep 2018–Feb 2020 — Teaching assistant, **ETH Zürich**, Switzerland

I organized tutorials in engineering mechanics for 30+ students.

Languages

Italian	Native
German	Fluent
English	Fluent

Skills

Programming	Python, C++, Rust, Java
Systems	Linux, shell, Docker, network simulators (including ones I built)