# **Matteo Boglioni**

■ boglioni.matteo@gmail.com | 🛪 ilboglions.github.io | 🖸 ilboglions | in matteoboglioni

Interests Privacy and Security in Machine Learning, LLMs, Deep Learning.

#### Education Swiss Federal Institute of Technology in Zurich (ETH Zürich)

Sep 2023 - Sep 2025

MSc in Computer Science

• Core Areas: Machine Intelligence, Data Management Systems.

#### University of Wisconsin-Madison

Jan 2023 - Jun 2023

Computer Engineering Exchange Student - GPA: 4.0/4.0

• Courses: Artificial Neural Networks, Introduction to Cryptography, Introduction to Robotics.

Politecnico di Milano Sep 2020 - Jul 2023

BSc in Computer Engineering - Final Grade: 110/110 with honors - GPA: 29.41/30

• Participated for a year at NECSTCamp: a research program for students.

## Research Experience

#### Carnegie Mellon University

Mar 2025 - Sep 2025

Master's Thesis: Advancing Efficient Differential Privacy Auditing

Advisor: Prof. Zhiwei Steven Wu, Prof. Florian Tramèr

#### Swiss Federal Institute of Technology in Zurich (ETH Zürich)

Sep 2024 - Feb 2025

Semester Project: "Membership Inference over Diffusion-models-based Synthetic Tabular Data"

Advisors: Prof. Florian Tramèr, Jie Zhang, and Michael Aerni

• Part of SaTML MIDST Challenge.

Publications M. Boglioni, A. Sgobbi, G. Tavernini, F. Rita, M. Mosbach, T. Pimentel, Do Generalisation Results Generalise?, Submitted to Empirical Methods in Natural Language Processing (EMNLP), 2025

> T. Liu, M. Boglioni, Y. Fu, S. Hu, P. Thaker and S. Wu, Enhancing One-run Privacy Auditing with Quantile Regression-Based Membership Inference, Accepted at Theory and Practice of Differential Privacy Workshop,

#### Teaching

#### "Peer-to-Peer Tutoring" at Politecnico di Milano

2021 - 2023

 Held for multiple semesters for approximately 10h/week tutoring sessions for Foundamentals of Computer Science, Linear Algebra, Basic Circuit Theory, Probability and Statistics.

**Robotics Class** Oct 2019 - Mar 2020

• Taught a robotics class during my senior year of High School for other students starting from the first lines of code up to basic IoT projects.

#### **Honors**

#### Politecnico di Milano 2020. Best Freshman Award

### Leadership **Experience**

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Spring 2019

- Winning of Italian National Championship
- · The team designed and created a protoype of a functioning communication system for locked-in syndrome patients making them able to interact through a humanoid robot.

Scout Experience Oct 2009 - Current

- Up to 2022 as Mentee, now as Educator
- · Team work and problem-solving.