RICCARDO TAIELLO, PH.D.

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ABOUT ME

I work at the intersection of machine learning, collaborative learning, computer vision, and security & privacy, focusing on developing solutions for real-world challenges, particularly in medical and computer vision applications. My passion is combining multiple domains to create secure and impactful systems that address practical needs.

EXPERIENCE

Machine Learning Engineer - Privacy Engineer @ Fed-BioMed

Oct 2021 - Sept 2024

Led the design and deployment of two Secure Aggregation protocols for Federated Learning in hospital settings, resulting in a negligible overhead compared without Secure Aggregation.

Teaching Assistant @ EURECOM

Oct 2022 - Feb 2024

- Secure Comunication 15h & Big Data 15h

AREAS OF EXPERTISE

- PETs (Expert): Multi-Party Computation, Homomorphic Encryption, Differential Privacy
- Python (Expert): PyTorch, Keras, Flower, PySpark
- Machine Learning (Expert): Federated Learning, CNN, RNN, LLM, Transformers
- DevOPS (Intermediary): Git, Bash, CI-CD, SQL
- Programming Languages (Intermediary): Java, C, C++, Go-lang
- Languages: English (Full proficiency), French (Full proficiency), Italian (Native tongue)

EDUCATION

Ph.D. in Privacy-Preserving Machine Learning for Collaborative Healthcare Oct 2021 - Sept 2024

INRIA Sophia Antipolis - EURECOM

5 publications in medical imaging, privacy & security, and computer vision (See Google Scholar)

MSc in Computer Science

Oct 2019 - Oct 2021

Sapienza University of Rome

110/110 with Honors

Best Computer Science Student 2021

PUBLICATIONS

Privacy Preserving Image Registration - @MICCAI 2022 (Rank A) and @MedIA (I.F. > 15K) R. Taiello, M. Önen O. Humbert, M. Lorenzi

Study on transfer learning capabilities for pneumonia classification in chest-x-rays images - @ CMPB $(\mathbf{I.F} > \mathbf{5K})$

D. Avola, A. Bacciu, L. Cinque, A. Fagioli, M. R. Marini, R. Taiello

Let Them Drop: Scalable and Efficient Federated Learning Solutions Agnostic to Client Failures @ ARES 2024 (Rank B)

R. Taiello, M. Önen C. Gritti, M. Lorenzi

INVITED TALKS