

## Dario Pasquini, Ph.D.

19/09/1991, Rome

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### Experience:

- [ 10/2021 - today ] **Postdoctoral Researcher:**  
École Polytechnique Fédérale de Lausanne (EPFL), Switzerland  
Security and Privacy Engineering Laboratory (SPRING)  
Lab lead: *Carmela Troncoso*
- [ 02/2021 - 09/2021 ] **Research Fellow:**  
Institute for applied mathematics “Mauro Picone” (IAC-CNR), Italy
- [ 07/2021 ] **Ph.D. in Computer Science:**  
*Sapienza* University of Rome, Italy  
Fellowship winner.  
Advisor: *Massimo Bernaschi*
- [ 03/2019 - 03/2020 ] **Visiting Researcher:**  
Stevens Institute of Technology, USA  
Advisor: *Giuseppe Ateniese*
- [ 2018 ] **Master’s degree in Computer Science:**  
*Sapienza* University of Rome, Italy  
Final Grade: *110/110 cum laude*  
Program of Study: *Network and Security*

### Main research topics:

- Security & Privacy in Machine Learning.
- Password Security.

### Publications:

- [1] **Dario Pasquini**, Giuseppe Ateniese, Carmela Troncoso. *Universal Neural-Cracking-Machines: Self-Configurable Password Models from Auxiliary Data*. 45th IEEE Symposium on Security and Privacy (S&P ’24), May 2024
- [2] **Dario Pasquini**, Mathilde Raynal, Carmela Troncoso. *On the (In)security of Peer-to-Peer Decentralized Machine Learning*. 44th IEEE Symposium on Security and Privacy (S&P ’23), May 2023
- [3] **Dario Pasquini**, Danilo Francati, Giuseppe Ateniese. *Eluding Secure Aggregation in Federated Learning via Model Inconsistency*. ACM Conference on Computer and Communications Security (CCS ’22), November 2022
- [4] **Dario Pasquini**, Giuseppe Ateniese, Massimo Bernaschi. *Unleashing the Tiger: Inference Attacks on Split Learning*. ACM Conference on Computer and Communications Security (CCS ’21), November 2021
- [5] **Dario Pasquini**, Marco Cianfriglia, Giuseppe Ateniese, Massimo Bernaschi. *Reducing Bias in Modeling Real-world Password Strength via Deep Learning and Dynamic Dictionaries*. 30th USENIX Security Symposium (USENIX Sec ’21), August 2021

- [6] **Dario Pasquini**, Ankit Gangwal, Giuseppe Ateniese, Massimo Bernaschi, Mauro Conti. *Improving Password Guessing via Representation Learning*. 42th IEEE Symposium on Security and Privacy (S&P '21), May 2021.
- [7] **Dario Pasquini**, Giuseppe Ateniese, Massimo Bernaschi. *Interpretable probabilistic password strength meters via deep learning*. 25th European Symposium on Research in Computer Security (ESORICS '20), September 2020.
- [8] **Dario Pasquini**, Marco Mingione, Massimo Bernaschi. *Adversarial out-domain examples for generative models*. IEEE European Symposium on Security and Privacy Workshops, EuroS&P Workshops '19
- [9] Massimo Bernaschi, Pasqua D'Ambra, **Dario Pasquini**. *AMG based on compatible weighted matching for GPUs*. Parallel Computing, 2020.
- [10] Massimo Bernaschi, Pasqua D'Ambra, **Dario Pasquini**. *BootCMatchG: An adaptive Algebraic MultiGrid linear solver for GPUs*. Software Impacts, 2020.