Antonio Pelusi

Ph.D. researcher

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Skills

Back-end	C, C++, Java, Kotlin, Python · Django, Jekyll, Android SDK, RayLib · SQL, NoSQL (MongoDB, Neo4j)
Front-end	HTML, CSS, JavaScript · ImGui, JavaFX, Semantic UI, Bootstrap
Libraries	OpenMP, CUDA, Socket, Pandas, Numpy, MatPlotLib, Seaborn, SKLearn, NLTK, Asyncio
Tools	Linux, Git, Docker, Make, Gradle, Maven
Certificates	MasterZ Blockchain Training Program, De-Cifris Trends in Modern Cryptography
Languages	Italian, English

Education

Ph.D. in Computer Science and Mathematics of Computation
*nov. 2024 → **Ongoing***

University of Insubria · Random Power

- Investigated privacy preservation techniques, including Differential Privacy, to enhance data security and user anonymity.
- Analyzed the impact of randomness on privacy-preserving methodologies to optimize data protection strategies.

Master's Degree in Computer Science
sep. 2022 → apr. 2024

University of Modena and Reggio Emilia
110/110

- Big Data & Machine Learning: Developed predictive models and analyzed large volumes of data, focusing on machine learning techniques.
- Cybersecurity & Cryptography: Studied cybersecurity principles and cryptographic techniques for data protection.

Post Graduate Degree CBI.Attract
feb. 2023 → jun. 2023

University of Bologna · CERN · AGH University
30L/30

- Identified tech opportunities, applied Design Thinking, prototyped, and tested.
- Research visits at CERN and AGH University.

Bachelor's Degree in Computer Science
sep. 2018 → apr. 2022

University of Modena and Reggio Emilia

- Foundational Knowledge: Covered algorithms, data structures, programming languages, computer architecture, and OS.
- Mathematical Foundations: Included discrete mathematics, calculus, statistics, and linear algebra.

Experience

Random Power (startup)
*may 2024 → **Ongoing***

Software Developer
Como, Italy

- Involved from day one in the definition and development of Random Power's bit generation client/server platform:
  - Authored code in Python, JavaScript, HTML and CSS for the client Django web application.
  - Collaborated on the development of the scheduler, the controller, and the Trusted Execution Environment in C.
  - Defined and managed the communication interfaces among the system components.

A. Paradisi High School
sep. 2024 → jul. 2024

Computer Science High School Teacher
Vignola, Italy

University of Modena and Reggio Emilia
sep. 2024 → dec. 2024

Computer Science University Tutor
Modena, Italy

Liferay Inc.
may 2021 → jul. 2021

Software Developer
Remote

- Integrated the Stripe payment method into the Liferay Open Source Portal.

Publications

Privacy Preservation in Data Sharing: A Study on Differential Privacy
Apr. 2024

https://doi.org/10.6084/m9.figshare.26411314
Master's thesis

Awards

Green & Digital Transformation two-day Hackathon
sep. 2023

University of Modena and Reggio Emilia
Mantua, Italy

- Winner of the hackathon with a machine learning-based model for predicting and optimizing water consumption.