

## Federico Magnanini

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University of Modena and Reggio Emilia  
Department of Engineering “Enzo Ferrari”  
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## Education

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- 2019 → ongoing **PhD in Information and Communication Technologies (ICT)**  
Department of Engineering “Enzo Ferrari”  
University of Modena and Reggio Emilia (Italy)  
Advisor: Prof. Michele Colajanni  
Main research interests: Cryptography, distributed ledgers
- 2016 → 2019 **Master’s Degree in Computer Engineering**  
Department of Engineering “Enzo Ferrari”  
University of Modena and Reggio Emilia (Italy)  
Graduation mark: 110/110 **cum laude**  
Thesis: *Design of a blockchain-based architecture for fully decentralized distribution and revenue management of digital contents*  
Advisor: Prof. Michele Colajanni  
Co-advisor: Ing. Luca Ferretti  
Main subjects covered: Blockchain, cryptography
- 2013 → 2016 **Bachelor’s Degree in Computer Engineering**  
Department of Engineering “Enzo Ferrari”  
University of Modena and Reggio Emilia (Italy)  
Thesis: *pLogger - Implementazione di un sistema di titolazione personalizzato*  
Advisor: Prof. Nicola Bicocchi  
Main subjects covered: Programming/Software development; Embedded systems

## Research Activity

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Short description My research interests involve the study of applied cryptography and distributed ledgers to design intrusion tolerant systems.

## Languages

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native **Italian**  
proficient **English** Cambridge FCE with Council of Europe Level C1  
basic **French**

## Computer Skills

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Programming Languages Python, C#, Java, C, C++, SQL, Solidity

Operating Systems Unix, Windows

Other Technologies Git, L<sup>A</sup>T<sub>E</sub>X

## Publications

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- Federico Magnanini, Luca Ferretti, and Michele Colajanni. Scalable, Confidential and Survivable Software Updates. *IEEE Transactions on Parallel and Distributed Systems*, 2022
- Federico Magnanini, Luca Ferretti, and Michele Colajanni. Flexible and Survivable Single Sign-On. In *International Symposium on Cyberspace Safety and Security*. Springer, 2021
- Luca Ferretti, Federico Magnanini, Mauro Andreolini, and Michele Colajanni. Survivable Zero Trust for Cloud Computing Environments. *Elsevier Computers & Security, Special Issue On Zero-Trust Security in Cloud Computing Environments (CCE)*, 2021
- Federico Magnanini, Luca Ferretti, and Michele Colajanni. Efficient License Management Based on Smart Contracts Between Software Vendors and Service Providers. In *18th IEEE Int'l Symp. Network Computing and Applications*, Boston, Sept. 2019

## Service

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- Virtual Room Co-Officer at *20th IEEE Int'l Symp. Network Computing and Applications*, Nov. 2021
- Virtual Room Chair at *19th IEEE Int'l Symp. Network Computing and Applications*, Sept. 2020
- Volunteer at *18th IEEE Int'l Symp. Network Computing and Applications*, Boston, Sept. 2019