Emanuele Raso

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Research Interest

My research activities focus on Cybersecurity, specifically *Data Privacy & Confidentiality*. My primary interests are related to the *Privacy Enhancing Technologies* in distributed contexts applying advanced cryptography.

Education

2020-current **Ph.D. in Computer Science, Control and Geoinformation**, *University of Rome Tor Vergata*, Rome, Italy.

2016-2019 **Master's Degree in Computer Science Engineering**, *University of Rome Tor Vergata*, Rome, Italy.
110/110

Master's Degree Thesis

Title *Coprotect: gestione cooperativa di chiavi crittografiche per la sicurezza dei dati in sistemi cloud*

Supervisor Maurizio Naldi

Languages

Italian Native

English Good written and spoken

Experience

2021-current **Freelance Software Developer**, ***Docunque SRL***, Rome, Italy.
Integration with regional systems for healthcare SSN and FSE.

2020-current **Ph.D Student**, ***University of Rome Tor Vergata***, Rome, Italy.
"Enhance data privacy and confidentiality in Cloud Computing services through the use of cutting-edge cryptographic tecniques, such as Functional Encryption and Homomorphic Encryption, adopting an experimental and not only theoretical approach", *Ph.D Project*

2019-2020 **Assistant Researcher**, ***University of Rome Tor Vergata***, Rome, Italy.
"Business Process Re-engineering and functional toolkit for GDPR compliance (BPR4GDPR)", *European H2020 project*.

Teachings

2022 **Tutor**, ***University of Rome Tor Vergata***, Rome, Italy.
Fundamentals of Informatics

2021 **Cybersecurity Lecturer**, ***University of Rome Tor Vergata***, Rome, Italy.
Digital Healthcare

2018 **Tutor**, ***University of Rome Tor Vergata***, Rome, Italy.
Fundamentals of Informatics

Main Contributions

GitHub FHIR-Diet
ABEBox
AnonTool
CoProtect

Programming Skills

Programming C, C++, Java, Python, JavaScript, Node.js, Bash, Git, Assembly, AMPL

Software Platform Docker, Git

Software MATLAB, Visual Studio Code, Microsoft Office 365

Operating Systems Apple macOS, Linux distributions and Microsoft Windows

Publications

2022 "Privacy-Aware Architectures for NFC and RFID Sensors in Healthcare Applications", *E. Raso, G. M. Bianco, L. Bracciale, G. Marrocco, C. Occhiuzzi, P. Loreti*, MDPI Sensors (2022).

2022 "Towards a Hybrid UHF RFID and NFC Platform for the Security of Medical Data from a Point of Care", *G. M. Bianco, E. Raso, L. Fiore, A. Riente, A. B. Barba, C. Miozzi, L. Bracciale, F. Arduini, P. Loreti, G. Marrocco, C. Occhiuzzi*, IEEE 12th International Conference on RFID Technology and Applications (RFID-TA 2022) (**Best paper award**).

2022 "Performance Evaluation of Cryptographic Schemes for Blockchain Security of Smart Grids", *E. Raso, L. Bracciale, P. Gallo, G. Bernardinetti, G. Bianchi, E. Riva Sanseverino, P. Loreti*, IEEE Workshop on Blockchain for Renewables Integration (BLORIN 2022).

2022 "Privacy in Blockchain-based Smart Grids", *L. Bracciale, E. Raso, P. Gallo, E. Riva Sanseverino, G. Bianchi, P. Loreti*, IEEE Workshop on Blockchain for Renewables Integration (BLORIN 2022).

2022 "A Privacy-Preserving Blockchain Solution to Support Demand Response in Energy Trading", *L. Bracciale, P. Loreti, E. Raso, G. Bianchi, P. Gallo, E. Riva Sanseverino*, IEEE 21st Mediterranean Electrotechnical Conference (MELECON 2022).

2021 "GDPR Compliance Made Easier: the BPR4GDPR Project", *G. Lioudakis, E. Papagiannakopoulou, M. Koukovini, N. Dellas, K. Kalaboukas, L. Bracciale, E. Raso, G. Bianchi, P. Loreti, P. Barracano, S. Alexakis, R. Medeiros de Carvalho, M. Hassani*, Advanced Research on Information Systems Security ($ARIS^2$) (2021).

2021 "Toolate: cryptographic data access control for offline devices through efficient key rotation", *L. Bracciale, P. Loreti, E. Raso, G. Bianchi*, Proceedings of the 2th workshop on CPS&IoT security and privacy (CPSIoTSec 2021).

2021 "An SDN-Based Traffic Handover Control Procedure And SGD Management Logic For EHF Satellite Networks", *M.M. Aurizzi, T. Rossi, E. Raso, L. Funari, E. Cianca*, Computer Networks (2021).

2021 "ABEBox: A data driven access control for securing public cloud storage with efficient key revocation", *E. Raso, L. Bracciale, P. Loreti, G. Bianchi*, Proceedings of the 16th International Conference on Availability, Reliability and Security (ARES 2021).

2020 "CoProtect: collaborative management of cryptographic keys for data security in cloud systems", *L. Bracciale, P. Loreti, E. Raso, M. Naldi, G. Bianchi*, Proceedings of the 6th International Conference on Information Systems Security and Privacy (ICISSP 2021).