

Niccolò Izzo

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LINKS

Github: [n1zzo](#)
Twitter: [@n1zzo](#)

COURSEWORK

PHD

Summer School on Real World Crypto
Advanced Computer Security
Strategic Decision Making
Computer Ethics

GRADUATE

Computer Security
Cryptography
Code Transformation & Optimization
Formal Languages and Compilers
Advanced Computer Architectures

SKILLS

PROGRAMMING

Over 10000 lines:
C • C++ • Python3
Over 5000 lines:
Java • C#

Familiar:

Verilog • LLVM • OpenCL

COMMUNICATION

Six years long membership of Politecnico Open unix Labs, with more than 12 public lectures and 250+ teaching hours in the Politecnico di Milano environment. Multicultural experiences obtained in a three year volunteering at the Chaos Communication Congress.

LANGUAGE

Cambridge First Certificate in English (FCE), 2012 grade B

OPEN SOURCE

GNU/LINUX

8+ years experience with GNU/Linux.

OPENRTX

Co-founder of OpenRTX, free and open source firmware for ham radios.
Website: openrtx.org

PATENTS

2018-1472

UFS Bus Encryption for NAND and Emerging NVMs

EDUCATION

POLITECNICO DI MILANO

PHD IN COMPUTER SCIENCE

Expected March 2022 | Milan, Italy

MSc IN COMPUTER SCIENCE AND ENGINEERING

Grad. Dec 2017 | Milan, Italy | Final Grade: 110L / 110

BS IN INGEGNERIA INFORMATICA

Grad. July 2015 | Milan, Italy | Final Grade: 95 / 110

MASTER'S THESIS

ROWHAMMER

Title: Reliably achieving and efficiently preventing Rowhammer attacks
Available at: politesi.polimi.it/handle/10589/137667

PUBLICATIONS

MICROARCHITECTURAL SIDE CHANNEL ATTACKS

A. Barengi, L. Breveglieri, N. Izzo, G. Pelosi "Exploring Cortex-M Microarchitectural Side Channel Information Leakage"
Published at: IEEE Access 9.

EMERGING MEMORY ENCRYPTION

N. Izzo, A. Barengi, L. Breveglieri, G. Pelosi, P. Amato "A secure and authenticated host-to-memory communication interface"
Published at: ACM International Conference on Computing Frontiers 2019 (CF19), Alghero, Sardinia, , Italy, April 30 - May 2. Proceedings ACM 2019.

ROWHAMMER

A. Barengi, L. Breveglieri, N.Izzo, G. Pelosi "Software-only Reverse Engineering of Physical DRAM Mappings for Rowhammer Attacks"
Published at: 3rd International Verification and Security Workshop (IVSW), Cap Roig, Platja d'Aro, Costa Brava, Spain, July 2-4. Proceedings IEEE 2018.

64KEY

F. A. Izzo, L. Aspesi, A. Bellini, C. Pacchiarotti, F. Caimi, G. Persano, N. Izzo, P. Tordini, L. Mottola, M. Bianchini, S. Maffei "64Key - A Mesh-based Collaborative Platform". Published at: 16th SenSys, Shenzhen, China.

SMART TOY

F. Delprino, C. Piva, G. Tommasi, M. Gelsomini, N. Izzo, M. Matera, "ABBOT: A Smart Toy Motivating Children to Become Outdoor Explorers"
Published at: AVI 2018, Castiglione della Pescaia, Grosseto (Italy).

EXPERIENCE

MICRON SEMICONDUCTOR S.R.L | ENGINEER, SYSTEM ARCHITECT

Oct 2021 - Present | Vimercate, Italy

Security architectures design for memory and storage products.

MICRON SEMICONDUCTOR S.R.L | COMPUTER SECURITY INTERN

Jul 2018 – Jul 2019, Oct 2020 - Oct 2021 | Vimercate, Italy

Design and evaluation of security architectures for emerging memories.

REV.NG SRLS UNIPERSONALE | SOFTWARE ENGINEER

Feb 2018 – Dec 2020 | Milan, Italy

Development of the Qualcomm Hexagon support for the QEMU emulator.

POLITECNICO DI MILANO | FORMAL LANGUAGES TA

Sep 2019 - Dec 2021 | Milan, Italy

Teaching students how to create an educational C compiler with flex and bison.

POLITECNICO DI MILANO | COMPUTER SCIENCE 101 TA

Jan 2017 – Dec 2021 | Milan, Italy

Teaching the fundamentals of computer programming and the C language.