



Francesco Intoci

Software & Security Engineer

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📍 Zurich, Switzerland

🇮🇹 Italian

in Francesco Intoci

🔗 intx4.github.io

📅 04 Jan 1999

EXPERIENCE

Feb 2024 – present
Zürich, Switzerland

Blockchain Software Engineer, Taurus SA

- Taurus SA is the industry leader in banking-grade software for digital asset custody and tokenization
- Working in Taurus Dev Blockchain Team, I am responsible for developing support for the Stellar (XLM) protocol, working across Taurus software stack, from Taurus blockchain indexer to Taurus custody solution. This entails developing secure, scalable and maintainable code.
- Technologies: Go, C, Docker, Jenkins, Thales HSMs (PSE2, PSE3, Luna)


Jul 2023 – Dec 2023
Zürich, Switzerland

Security Research Engineer (Intern), Huawei Technologies

- Research and PoC development on **Privacy Preserving MLaaS**, leveraging **Trusted Execution Environments** based on Library OSes runtime environments, and **Differential Privacy**, to enable End-To-End data privacy, from training to inference
- Technologies: C, Python, Tensorflow, Docker, Gramine libOS, SGX

Oct 2022 – May 2023
Lausanne, Switzerland

Master Thesis Student Researcher, CYD Campus - Armasuisse

- Design and Implementation of an **Information Retrieval Scheme** on sparse databases based on **RLWE FHE** to allow confidential Lawful Interception in the **5G Core**
- Publication in **IEEE CNS 2023**  as first author
- Participation to **NATO CCDCOE Locked Shields 2023** exercise as Blue Team 12
 - **main responsible of 5G systems**
- Technologies: Python, Go, Lattigo, Docker, Ansible

Mar 2022 – Feb 2023
Lausanne, Switzerland

Student Researcher, LDS & SPRING labs - EPFL

- Implementation of a framework for **Privacy-Preserving MLaaS** in cloud environments based on **RLWE FHE** and **MPC**, which extends the deployment scenarios of FHE based Privacy-Preserving MLaaS beyond previous works
- Publication in **ACNS 2023 (Cloud S&P workshop)**  as first co-author
- Technologies: Go, Python, PyTorch

EDUCATION

Sep 2020 – Mar 2023
Lausanne, Switzerland

EPFL, CyberSecurity - Master Degree

- **Excellence's Fellowship** holder (**Top 3% students**)
- **GPA 5.79 / 6.00**
- Various TAs activities for Information Security & Privacy and Mobile Networks courses

Sep 2021 – Mar 2022
Zurich, Switzerland

ETH, CyberSecurity - Master Degree (Exchange Semester)

- **2nd place** at Geneva **Cyber 9/12 Strategy Challenge 2022**
- **Best Semester Project Award** for *Advanced Topics in Communication Networks*

Sep 2017 – Jul 2020
Torino, Italy

Politecnico di Torino, Computer Engineering - Bachelor Degree

- **GPA 110 / 110 cum laude**
- TAs activities for Computer Science course for 1st year students

PUBLICATIONS

P3LI5: Practical and Confidential Lawful Interception on the 5G Core

Accepted for publication at IEEE Conference on Computer and Network Security 2023.

slytHERin: An Agile Framework for Encrypted Deep Neural Network Inference, Springer

Accepted for publication at ACNS 2023 - 5th Workshop on Cloud Security and Privacy (Cloud S&P 2023).

LANGUAGES

Italian	<div><div></div><div></div><div></div><div></div><div></div></div>	English	<div><div></div><div></div><div></div><div></div><div></div></div>
Spanish	<div><div></div><div></div><div></div><div></div><div></div></div>	French	<div><div></div><div></div><div></div><div></div><div></div></div>
German	<div><div></div><div></div><div></div><div></div><div></div></div>		