Francesco Intoci

Software & Security Engineer

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📅 04 Jan 1999

EXPERIENCE

Feb 2024 – present
Zürich, Switzerland

R&D Blockchain Software Engineer, *Taurus* SA
- Taurus SA is the industry leader in banking-grade software for digital asset custody and tokenization
- Working in Taurus Blockchain Team, my tasks range from integrating Taurus Protect with both consolidated and emerging blockchains, improving the scalability and maintainability of the product, to monitoring PROD systems
- Technologies: Go, C, Docker, Jenkins, Red Hat OpenShift, Opensearch, HSMs

Jul 2023 – Dec 2023
Zürich, Switzerland

Security Research Engineer, *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

Researcher (M.Sc Thesis), 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

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

Language	Level	Language	Level
Italian	●●●●●	English	●●●●○
Spanish	●●○○○	French	●●●○○
German	●○○○○		