LUCA MULTAZZU

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PROFESSIONAL EXPERIENCE

Backend Engineer & Applied Cryptographer — SICPA, SwitzerlandSeptember 2023 – Present

- Designing, developing, and maintaining distributed microservices using **Java** 17/21 and **Spring Boot** 3.
- Participating in **architecture design** for high-availability payment, ordering, and track-and-trace systems.
- Integrating **Keycloak** and identity provider solutions for secure authentication and authorization.
- Building **event-driven** systems with **Kafka**, implementing **gRPC** and **REST** APIs.
- Working with **PostgreSQL** and **Oracle DB** in production-grade environments.
- Deploying services to both on-premises and **AWS** using automated **CI/CD** pipelines.
- Applying **Agile Scrum** practices including sprint planning, backlog grooming, and peer code reviews.
- Exposure to **Kotlin**, **Rust**, and **Python** for supplementary service development.
- Since July 2025, contributing to **applied cryptography** initiatives (currently in training and research phase), including **differential privacy** and **digital identity**.

EDUCATION

MSc in Cyber Security — ETH Zurich (2021 - 2023)

Minor in Data Management Systems | GPA: 5.49 / 6

Key coursework: Applied Cryptography, Advanced Encryption Schemes, Big Data, Security Engineering, Distributed Systems.

Selected Academic Projects:

- Optimal Distributed Read Atomic Transactions: Developed and tested a **novel read atomic algorithm** for distributed transactions.
- Road Segmentation Classifier: Built a neural network classifier for satellite imagery analysis.

Exchange Semester — EPFL, Lausanne (Sept 2022 - Feb 2023)

Key coursework: **Machine Learning**, Distributed Information Systems, **Formal Verification**.

BSc in Computer Engineering — Polytechnic of Turin (2018 - 2021)

Final Grade: 110 / 110

TECHNICAL SKILLS

Languages:

Java (expert), Kotlin, Rust, Python, C, C++, Scala

Cryptography:

Differential Privacy, Digital Identity

Frameworks & Tools:

Spring Boot 3, Kafka, gRPC, REST, Keycloak, Jenkins

Databases:

PostgreSQL, Oracle DB, Neo4j, GraphQL

Architecture:

Distributed Microservices, Secure Systems, Payment Systems

Cloud & Deployment:

AWS, On-Prem, CI/CD Pipelines

Methodologies:

Agile Scrum, Secure Coding, Cryptography