

# MIHAI-GEORGE LICU

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## EDUCATION

### ETH Zurich

Master of Science in Cybersecurity

Zurich, Switzerland

Sep 2024 – Jun 2026

### University of Bucharest

Bachelor of Computer Science and Engineering

Bucharest, Romania

Sep 2020 – Jul 2024

## WORK

## EXPERIENCE

### CERN | Openlab Summer Intern

Geneva, Switzerland

European Organization for Nuclear Research

Jun 2023 – Sep 2023

- Engineered a Python tool with Kerberos SSO to automate security scans across 1000+ CERN sites. Systematically inventoried web technologies, pinpointed vulnerabilities, and initiated security enhancements.
- Played a key role in the incident response to a significant hacking event, using OSINT and reverse engineering to analyze attack strategies and breach magnitude.

### Deutsche Bank | Software Engineer Intern

Bucharest, Romania

Multinational investment bank

Mar 2023 – Aug 2023

- Developed a scalable platform for 1500+ employees using Java Spring Boot (backend) and React (frontend), which streamlined the management and tracking of company-wide trainings.
- Implemented a full CI/CD pipeline, automating the build, test, and cloud deployment process, which increased release frequency and reduced manual deployment errors.

### ETH Zurich | Summer Research Fellow

Zurich, Switzerland

Swiss Federal Institute of Technology

Jul 2022 – Aug 2022

- Conducted comprehensive validation and scalability tests to evaluate the performance of a novel WebAssembly sandbox that utilizes Intel Memory Protection Keys at the kernel level.
- Authored exercises, built infrastructure, and designed solutions for the 'Systems Security' course, preparing Master's students for topics like sandboxing and fuzzing.

## PROJECTS

### cryptorusticon | Rust

- Developed a Rust library for modern cryptography, implementing the Blum Blum Shub pseudorandom number generator and the Solitaire cipher.
- Ensured code reliability and correctness by integrating a comprehensive unit test suite using built-in Rust testing frameworks.

### Sound Synth | C++, SDL

- Developed a real-time sound synthesizer using digital signal processing (DSP) techniques, implementing oscillators (sine, square, etc.) and ADSR envelopes for diverse audio generation.
- Utilized modern C++ and object-oriented design for a modular, extensible signal processing chain, leveraging SDL for cross-platform audio and windowing.

## SKILLS

**Programming Languages:** Python, C, Rust, Go, C++

**Developer Tools:** Linux, Git, IDA Pro, Wireshark, Burp Suite