# MIHAI-GEORGE LICU

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**EDUCATION**

**University of Bucharest**                                     Bucharest, Romania
Bachelor of Computer Science and Engineering          Sep 2020 – Jul 2024

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**WORK EXPERIENCE**

**CERN** | Openlab Summer Intern                             Geneva, Switzerland
European Organization for Nuclear Research          Jun 2023 – Sep 2023
- Orchestrated incident response initiatives for a significant hacking incident, leveraging OSINT methods and reverse engineering to dissect attack strategies and gauge breach magnitude.
- Engineered a Python tool for extensive CERN site scans, integrating SSO via Kerberos authentication. Systematically inventoried web technologies, pinpointed vulnerabilities, and initiated security enhancements.

**ETH Zurich** | Summer Research Fellow                      Zurich, Switzerland
Swiss Federal Institute of Technology                  Jul 2022 – Aug 2022
- Crafted exercises, infrastructure, and solutions for a Systems Security curriculum, familiarizing Master's candidates with advanced security methods like sandboxing and fuzzing.
- Conducted comprehensive validation and scalability tests for benchmarks, evaluating the performance and potential of a novel hardware-centric sandbox for WebAssembly utilizing Intel's memory protection keys technology at the kernel level.

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**PROJECTS**

**cryptorusticon** | Rust
- Developed a Rust library for cryptography, utilizing the num crate for efficient mathematical operations.
- Implemented the Blum Blum Shub pseudorandom number generator and the Solitaire cipher from the Cryptonomicon novel and integrated with rigorous unit tests for reliability.

**Yuri** | Rust, Python
- Created a C2 framework that enables operators to establish and manage reliable communication channels with listening posts, facilitating effective command and control.
- Engineered a secure implant process for establishing reliable communication channels, ensuring optimized control over integrated systems.

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**HACKATHONS**

**DevHacks 2022** | 3rd Place
- On the basis of a climate change theme I developed a web app analyzing MEPs' voting records on climate change legislation utilizing machine learning.

**Smarthack 2022** | Usability Prize
- Crafted a No Code web-scraping tool with a browser extension for data extraction, enabling users to automate data collection from websites to build personalized dashboards.

**HackITall 2022** | 3rd Place
- Developed a tool for analyzing and predicting public companies' ESG scores based on their public reports and statements.

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**SKILLS**

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

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