

FABIO PIRAS

Computer Engineer
Cybersecurity specialization



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SUMMARY

Computer engineer student in University of Pisa. During my academic journey I acquired a solid knowledge base in different areas of computer engineering such as: algorithms, artificial intelligence, cybersecurity, software development. I am a creative, motivated and diligent person who loves to work in a team to reach common results. I love having a positive impact on the community. I also do CTF competitions in my free time.

SKILLS

Languages: C/C++, Java, Python, PHP, JS, Kotlin, Erlang, Golang

Back-end: MySQL, MongoDB, Neo4j, Redis.

Technologies: Linux, Git, Spring, Docker, Tensorflow.

Soft skills: Cybersecurity, Critical thinking, Team-work, Project design & implementation, Problem-solving, Adaptability.

WORK EXPERIENCES

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| 09/2024 present | Curriculum Internship Working experience in the field of cybersecurity and network security. | Sma-RTy & University of Pisa |
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CURRENT PROJECT

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| - eBPF - C - Linux Kernel - Docker | A study on eBPF enhanced container security: Identifying and Addressing Data Visibility Vulnerabilities The project aims to study the security implications of eBPF in containerized environments. The final goal is to allow users inside containers to use the eBPF technology without causing security issues. |
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EDUCATION AND OTHER LEARNING EXPERIENCES

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| 04/2025 | Master's Degree Computer Engineering - Curriculum Cybersecurity | University of Pisa |
| 09/2022 | Bachelor's Degree Computer Engineering | University of Pisa |
| 06/2024 | Cyberchallenge.it trainee program | |
| 12/2024 | Fencing Instructor - 1st level | Accademia Nazionale di Scherma |

PAST PROJECTS HIGHLIGHTS (MORE ON MY PORTFOLIO)

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| - Golang - Erlang | Federated-GoLang Learning - 07/2024 - 09/2024 The project aims to integrate a federated learning platform by leveraging Erlang for the communication between the nodes and Go for the application logic. The application is built to support different types of nodes topology and to be able to handle the communication between them. | glmquint/fedlang |
| - Php - MySQL - Burp | SecureBookSellingWebsite - 11/2023 - 01/2024 Secure Book store is a fully functional site with a focus on cybersecurity, resistant to SQL injection, cross site scripting, privilege escalation and others malicious activity. The site has then been tested by cybersecurity expert at the University of Pisa. | Albran99/SecureBookWebSite |
| - Java - MongoDB - Neo4j - Spring | Rotten Movies - 12/2022 - 01/2023 RottenMovies is an online platform dedicated to film reviews, the project focus on handling large amount of data and the ability to query it in a fast and efficient way. | fp99/rottenmovies |
| - C++ - Omnetpp - Excel | Epidemic Broadcast - 01/2023 - 02/2023 Epidemic Broadcast is an "epidemic simulation" built using C++ in Omnetpp. The simulation represents a network of interconnected nodes, where each node has peer-to-peer connections. The objective of the simulation is to identify the optimal configuration that maximizes the spread of the "epidemic". | Albran99/EpidemicBroadcast |

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| - C++ - OpenSSL | SecureBank - 06/2023 - 07/2023 SecureBank is an application designed to implement the transfer of messages and data between a client and a bank server in a secure way. The protocol designed is resistant to both active attacks like replay and MITM and subquantum passive ones. The protocol uses both symmetric and asymmetric key encryption. | Albran99/SecureBank |
| - C++ - Cuda - uProf - Nsight | BitonicSort - 04/2023 - 06/2023 The project analyzes how the utilization of multithreading and GPU accelerators can bring a significant speedup in regards of a sorting algorithm, resulting in the ability to sort an array of 2Gb in less than 15 seconds specifically on an Nvidia Tesla T4. | Albran99/BitonicSort |

LANGUAGES

English - B2, **Italian** - native

INTERESTS & HOBBIES

CTF

I participate in CTF competitions in my free time.

Fencing

I am a fencing instructor and I have been practicing this sport for 7 years.