# Federico Elia

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**G**itHub

### **Education**

#### University of Genoa

Genoa, Italy

Bachelor's in Computer Science | GPA: 4.0/4.0

2020 - 2023

Information Theory and Inference  $\rightarrow$  GPA: 4.0/4.0

Algorithm Analysis and Design  $\rightarrow$  GPA: 4.0/4.0

Object-Oriented Languages and Programming  $\rightarrow$  GPA: 4.0/4.0

Linear Algebra and Numerical Analysis  $\rightarrow$  GPA: 4.0/4.0

Database  $\rightarrow$  GPA: 4.0/4.0

# **Work Experience**

#### **Blockchain Rush**

- Italy

Co-Founder / Software Engineer

01/2022 - Present

Co-founded and led a startup specializing in app and software development with a focus on blockchain technology.

Provided blockchain consultations to various companies, enhancing their software capabilities with secure, decentralized solutions.

Developed and managed blockchain-based applications, integrating cutting-edge technology to meet diverse client needs.

#### **University of Genoa**

- Genoa, Italy

#### Research Intern

11/2023 - 03/2024

Conducted research on IoT security, focusing on binary instrumentation and runtime monitoring.

Performed an in-depth study of the MQTT protocol and the Falco security tool.

Developed software components including an MQTT packet analysis library, a Falco adapter, and RML monitor in Prolog.

#### Galliera Hospital

- Genoa, Italy

#### Software Engineer

02/2023 - 08/2023

Integrated and enforced robust security protocols for healthcare systems.

Developed and maintained a critical software tool for password validation, used by 1,600 employees.

Enhanced cybersecurity measures and improved user authentication processes.

# **Side Projects**

#### [] linkedin\_aihawk

Achieved over 2,000 stars on GitHub, showcasing community interest and appreciation.

Created an Al-driven tool that automates and personalizes job applications on Linkedln.

### parse\_mqttv5\_packet

Developed a Node.js module for parsing MQTT packets, gaining positive feedback from users.

Contributed to enhancing the efficiency of IoT communication protocols through this module.

### hibp\_downloader

Created an automated tool for downloading and updating the local "Have I Been Pwned" database.

Received commendation for improving user awareness and security against data breaches.

## **Achievements**

**Blockchain Application Development:** Led the development of a blockchain-based application utilized by over 100 clients in the finance sector, enhancing transaction security and operational efficiency.

**Healthcare Security Integration:** Successfully integrated and enforced robust security protocols for a healthcare system, ensuring the safety of sensitive data for 1,600 employees.

**IoT Security Research:** Contributed to IoT security research at the University of Genoa, leading to the publication of a paper on binary instrumentation techniques.

### **Additional Skills**

Full Stack Development Cybersecurity Best Practices

Software Architecture Database Management

IoT Development Algorithm Analysis and Design

Runtime Monitoring Linear Algebra and Numerical Analysis

Cloud Technologies Object-Oriented Programming

Blockchain Technology Languages: Italian (Native), English (Professional)