

FEDERICO ELIA

Dublin 1, Ireland | P: +353 892338335 | fedembare@gmail.com | [GitHub](#)

EDUCATION

University of Genoa

Bachelor's Degree | Computer Science | GPA: 4/4

Genoa, Italy
2020 – 2023

- Algorithm Analysis and Design -> GPA: 4
- Object-Oriented Languages and Programming -> GPA 4
- Linear Algebra and Numerical Analysis -> GPA: 4
- Artificial Intelligence-> GPA: 4

PROJECTS

AIHawk

[Github Repo](#)

- **GitHub Recognition:** Gained over **12000 stars** on GitHub in 3 weeks, indicating rapid recognition and positive reception in the developer community.
- **Custom Resume and Cover Letter:** Automatically generates tailored resumes and cover letters based on specific job requirements.
- **Automated Job Applications:** Created an AI-driven tool to automate and personalize job applications on LinkedIn, improving efficiency and reducing application time.

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 for 10+ companies, enhancing their software capabilities with secure, decentralized solutions.
- Developed blockchain applications, integrated cutting-edge technology to meet client needs and drive industry innovation.

University of Genoa

Genoa, Italy

Research Intern

11/2023 – 03/2024

- Conducted in-depth research on IoT security, focusing on binary instrumentation and runtime monitoring, with an emphasis on applying binary instrumentation techniques to enhance IoT systems security..
- Performed in-depth study of the MQTT protocol, and [Falco\(open-source security tool utilizing binary instrumentation\)](#) analyzing its core operations and security implications in IoT environments.
- Developed multiple software components including MQTT packet analysis library, Falco adapter, and RML monitor in Prolog.
- Authored thesis "[Binary Instrumentation for Runtime Monitoring of Internet of Things Systems Using Falco](#)"..

Galliera Hospital

Genoa, Italy

Software Engineer

02/2023 – 08/2023

- Took on key responsibilities in integrating and enforcing robust security protocols, ensuring that all software functionalities complied with the latest cybersecurity standards and effectively mitigated potential threats.
- Played an integral role as part of the hospital's cybersecurity team, developing and maintaining a critical software tool for password validation used by over 1,600 employees, identifying that 20% of passwords were weak or compromised.

ACHIEVEMENTS

Winner of an Italian public competition

Won first place in a public competition with a perfect score of 70/70, securing a Software Developer position at Galliera Hospital.

Liguria Region Merit Scholarship

Awarded annually from 2020 to 2023 in recognition of academic excellence and contribution.

ADDITIONAL

- **Full-Stack Development** (Java, C#, Python, C, C++, JavaScript, PHP, Prolog)
- **Team Collaboration** (communication, Teamwork, Project management)
- **Database Management** (SQL, NoSQL - MySQL, Firebase)
- **IoT system design and development** (Sensor integration, ESP32, Raspberry)
- **Networking Protocols** (TLS, TCP, UDP, HTTPs, WebSocket, FTP, MQTT)
- **Runtime Monitoring** (Binary instrumentation tools, [runtime monitoring](#))
- **Artificial Intelligence** (sup/unsupervised, integration, embeddings, LangChain)
- **Software Architecture** (Design & Architectural patterns)
- **Documentation** (Clear and comprehensive)
- **Agile Methodologies** (Scrum, Stand-ups, User stories)
- **Version Control** (Git, GitHub, GitLab)
- **Cloud Technologies** (AWS, GCP, Kubernetes, Docker)
- **Languages** (Italian - Native, English - Professional)
- **API Integration & Development** (REST/RESTful , SOAP)

