

Edoardo Gennaretti

MS COMPUTER SCIENCE @UIC @PoliMi | CYBERSECURITY

Chicago, USA

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Education

University of Illinois at Chicago (UIC)

Chicago, USA

M.S. IN COMPUTER SCIENCE

Feb. 2025 - Exp. Sept. 2027

- **Double Degree** program with PoliMi
- Main courses: Network Security, Cryptography, Intro to AI, Intro to ML, Neural Networks, Computer Systems Security

Politecnico di Milano (PoliMi)

Milan, Italy

M.S. IN COMPUTER SCIENCE AND ENGINEERING

Mar. 2024 - Exp. Sept. 2027

- Focus on **Cybersecurity** and **Artificial Intelligence**
- Current **GPA: 28.14 / 30**
- Main courses: Computer Security, Offensive and Defensive Security, Digital Forensics
- Awarded with a merit-based **scholarship** as one of the top freshmen and annual tuition waivers due to high academic standing

B.S. IN COMPUTER SCIENCE AND ENGINEERING

Sep. 2020 - Mar. 2024

- Final **Grade: 106 / 110**, top 15% of the class

Experience

Discovery Partners Institute (DPI)

Chicago, USA

GRADUATE STUDENT RESEARCHER

Nov. 2025 - Present

- Contributing to the **OCPStorm** security testing framework at the Systems and Internet Security Lab (SISL)
- Extending its **fuzzing** support for additional EV charging protocols

UIC Capture the Flame

Chicago, USA

ORGANIZER AND CHALLENGE AUTHOR

Oct. 2025 - Apr. 2026

- **Co-organized** a city-wide CTF at UIC with 100+ participants and helped run its **infrastructure**
- **Designed and tested challenges** in reverse engineering and cryptography

CyberChallenge.IT

Milan, Italy

CTF NATIONAL FINALIST

Jan. 2025 - Jul. 2025

- Selected from 250+ candidates as one of the **top 6 students** to represent PoliMi at the national final
- 12-week training program in cryptography, web/software/network security, and malware analysis
- Competed in the national **Attack/Defense** final, focusing on **binary exploitation** and **reverse engineering**

Atmosia (start-up)

Milan, Italy

CO-FOUNDER AND SOFTWARE DEVELOPER

Oct. 2021 - Nov. 2023

- Co-founded a ClimateTech startup to develop a network of IoT sensors for **monitoring air pollution** and the environment
- Received a **€35,000 grant** and a **one-year incubation** as winner of a competition promoted by Enhance, a network of prestigious European technical universities
- Developed software in C, implemented a system for the real-time acquisition of data from various sets of environmental sensors

Selected Projects

Master's Thesis: Security of AI Agents

PYTHON || MCP || OPENCLAW

- Investigating security risks in AI agent frameworks, focusing on **OpenClaw** and **MCP skills**
- Analyzing how **malicious skills** can exploit and manipulate AI agents, and developing **access control mechanisms** to mitigate these risks

Artificial Neural Network & Deep Learning

PYTHON || TENSORFLOW || KERAS

- Developed a blood cell **image classifier** using TensorFlow, achieving 0.86 accuracy by iterating over 10+ architectures, including ConvNeXtBase and Inception modules, and implemented augmentation techniques like RandAug
- Developed a **custom CNN** from scratch for grayscale image segmentation; achieved 0.70 MIoU by implementing a transformer UNet and a post processing strategy to refine background predictions

Skills

Programming C, C++, Python, Java, Assembly

Languages Italian (native), English (C1)

Tools Git, Docker, Linux, Wireshark, Burp Suite, Ghidra, IDA Pro, pwntools, GDB

Security Reverse Engineering, Penetration Testing, Vulnerability Analysis