

Patrick Fabbiani

CYBERSECURITY MASTER STUDENT AT CA' FOSCARI UNIVERSITY

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Career Objective

I aim to secure a role in cybersecurity and secure software development, where I can apply my expertise in static analysis, cryptography, and full-stack engineering to build resilient systems and mitigate complex threats. My research with LiSA, hands-on labs in network/web attacks, and development of security tools reflect my commitment to proactive defense and technical depth. I thrive in dynamic environments that value initiative, collaboration, and continuous innovation.

Driven by curiosity and discipline, I seek to grow within a forward-thinking organization, contributing to high-impact projects while staying ahead of emerging technologies. My goal is to become a trusted cybersecurity professional — not just solving today's problems, but architecting tomorrow's secure digital foundations

Summary

Innovative Computer Scientist with expertise in cybersecurity, data protection, and risk management. Skilled in identifying and mitigating security threats, with experience in encryption, firewalls, IDS, and vulnerability assessments. Proven ability to develop robust security systems and solutions to safeguard organizational assets.

Driving License: Category AM, B

Health

Incident

60% OF INVALIDITY

Following a mountain accident that caused me to go into a coma, I developed deep personal resilience, adaptability, and determination. This experience taught me how to manage complex situations, face challenges with strength of character, and maintain a positive attitude in the face of difficulties.

Romallo, Trento - Italy

11/07/2010

Diabetes

TYPE 1 DIABETES - INSULIN DEPENDENT

Diagnosed with Type 1 Diabetes at the age of X, requiring daily insulin administration to manage blood glucose levels. Ongoing monitoring and treatment to maintain healthy glucose levels and prevent complications. Regular visits to endocrinologist and diabetes care team.

Trento / Venice - Italy

Dec. 2008

Work Experience

Ca' Foscari University (Co.Co.Co. 9 months)

RESEARCHER AND DEVELOPER OF LEARNING SIMULATIONS

- Developed interactive educational games and simulations focused on International Human Resource Management and Cross-Cultural Marketing using Unity and Unreal Engine.
- Integrated Artificial Intelligence techniques for performance tracking and personalized learning experiences.
- Designed and implemented gamification mechanics to enhance user engagement and learning outcomes.
- Created data visualization dashboards using Python and C++ for analyzing user performance and improving training effectiveness.
- Conducted usability testing and optimized simulations across multiple platforms (PC, mobile, VR).

(I attach the document given by the university about this research)

Venice - Italy

Jul. 2025 – Mar. 2026

Ca' Foscari University

INTERNSHIP

- Analyzed and tested the LiSA (Library for Static Analysis) plugin for taint analysis, identifying vulnerabilities and tracking data flow.
- Collaborated with development to improve taint tracking accuracy in database queries.
- Applied static analysis to assess security risks and prevent data leaks.
- Provided recommendations for enhancing data sanitization and security protocols.
- Documented findings and contributed to security reports to enhance database integrity.

Venice - Italy

Jun. 2024 – Dec. 2024

Metropolitan City of Venice, IT Sector

INTERNSHIP

- Created thematic tables for the General Territorial Plan (PTG) to support urban planning.
- Mapped bike-sharing station locations and secondary schools in Venice using GIS tools.
- Managed and organized geospatial data for accuracy and consistency in territorial development.
- Collaborated with urban planners and local authorities for effective data-driven decision-making.
- Delivered actionable insights through visualized maps and geospatial reports.
- Used QGIS to map 30+ bike-sharing stations, improving urban planning efficiency.

Venice - Italy

Nov. 2020 – Feb. 2021

Personal study

Unity Test Project

SELF-PACED LEARNING

Independent acquisition of fundamental game development skills with Unity and Unreal Engine, with a focus on C# scripting, physics, UI, and engine architecture. Practical application through the development of personal projects (e.g., 3D games, memory games). Advanced use of generative AI tools (ChatGPT, Qwen) to support software development, debugging, and documentation.

Personal Project

2025

Projects

Accademic thesis

Master thesis, LiSA taint analyzer (Dataset)

THESIS AUTHOR

Conducted a research study on taint analysis applied to datasets, using the LiSA static analysis framework. This study is based on LiSA analyzer (a library for static analysis developed at Ca' Foscari) and the goal is to improve program security, data integrity, data confidentiality,...
Conducted research on adapting taint analysis to track data flow and ensure integrity in datasets, proposing scalable "taint markers" for real-time detection of unauthorized modifications. Demonstrated feasibility and value of the framework in enhancing data security for sensitive sectors like finance, healthcare, and government.

Ca' Foscari University - MSc
Jul. 2024 - May. 2025

Bachelor thesis - General Territorial Plan (PTG)

THESIS AUTHOR

Collaboration with the agency for the creation of thematic maps for the General Territorial Plan (PTG).

Ca' Foscari University - BS
Nov. 2020 - Feb. 2021

High school thesis

High school thesis, Traffic Light Intersection Simulation Project

THESIS AUTHOR

Designed and implemented a simulation of a four-way traffic light intersection using PLC, RTU, and SCADA technologies. The system included both vehicular and pedestrian signal management with day/night modes and manual pedestrian request functionality. Developed hardware and software prototypes using Siemens LOGO, SCADA IdroNetwork, and RTU ISET-IS35. Implemented data logging, alarm visualization, and user interaction via graphical interfaces. Conducted alpha and beta testing to ensure system stability and functionality in realistic scenarios.

ITIS C. Zuccante
Mar. 2017 - Jun. 2017

Accademic projects

Network Security

ATTACKER FOR CHALLENGE

Completed network security labs involving: Network setup with Linux, Docker, and Wireshark. WPA cracking using aircrack-ng. RADIUS-based WPA-Enterprise configuration. TCP attacks (SYN flooding, MITM), firewall rules with iptables. BGP hijacking simulation and mitigation.

Ca' Foscari University - MSc
Jan. 2025 - May 2025

Web Security - Personal Projects

DEVELOPER

Developed tools to explore web vulnerabilities: SOP (Same-Origin Policy) evaluator in JavaScript, CORS policy simulator using Flask.

Ca' Foscari University - MSc
Feb. 2025 - May 2025

Web Security Challenges

ATTACKER FOR CHALLENGE

Explored vulnerabilities on PortSwigger using Burp Suite: Broken access control, CSRF, XSS, session hijacking, Logic flaws and insecure API behaviors. Created Python crawlers to extract HSTS and CSP policies from websites.

Ca' Foscari University - MSc
Jan. 2025 - May 2025

Network Security - HCF

ANALYZER

Implemented Hop Count Filtering (HCF) to detect IP spoofing using: Custom traceroute script, Python packet sniffer, Flask-based traffic analysis tool.

Ca' Foscari University - MSc
Sep. 2024 - Jan. 2025

Static Code Analysis (Go)

SOFTWARE DEVELOPER

Analyzed Go code for vulnerabilities and improved security practices.

Ca' Foscari University - MSc
Apr. 2024 - Jun. 2024

Code Obfuscation with Hikari

SECURITY ANALYST

Applied obfuscation techniques using Hikari-LLVM to protect software logic.

Ca' Foscari University - MSc
Mar. 2024

Web App Performance Test (Tsung)

SOFTWARE DEVELOPER

Evaluated performance of a movie database web application using Tsung.

Ca' Foscari University - MSc
May 2023 - Sep 2023

Face Detection System

FULL-STACK DEVELOPER

Built a face detection system using Java and OpenCV based on the Viola-Jones algorithm.

Ca' Foscari University - MSc
Nov. 2021 - Jun. 2022

Mine Hunter Robot (Lego Mindstorm)

TEAM PROJECT - DEVELOPER

Designed a mine-detection robot with Android app integration for camera guidance.

Ca' Foscari University - BS
Oct. 2019 - May 2020

E-commerce Simulation

TEAM PROJECT - WEB APP DEVELOPER

Simulated an online store with user and game management features.

Ca' Foscari University - BS
Jun. 2019 - Aug. 2019

Arduino Projects

SOFTWARE DEVELOPER

Built embedded systems including traffic light simulation, keypad interface, and LCD displays.

ITIS C. Zuccante
Sep. 2014 - Jun. 2017

Personal projects

Code Editor UI for HTML, JavaScript, Python and Java (HTML + Flask)

DEVELOPER

I developed an interactive, user-friendly code editor UI designed for real-time coding, syntax highlighting, and file management. The editor supports multiple programming languages, with features including code auto-completion, line numbering, error highlighting, and a customizable theme. Integrated various tools like search functionality, undo/redo, and a built-in terminal for seamless coding workflow. Utilized advanced JavaScript and React to ensure responsive design and optimal performance.

Personal2025

Full-Stack Web Application Development (Flask/JS)

DEVELOPER

I developed several projects with the use of Flask and JavaScript such as Memory Game, To-Do List, Expense Management.

Personal2025

Simulation Social Network (HTML + Flask)

DEVELOPER

I developed a simulation of a social network similar to Facebook, focusing on core features like user profiles, posts and messages (also with emoticons). The project included a Python-built backend. I implemented key functionalities such as user authentication, real-time updates, and a responsive design for the desktop. This project improved my understanding of full-stack development and database management, while also improving my problem-solving and debugging skills.

Personal2024-2025

Python projects

DEVELOPER

I developed several projects in Python such as a calculator, a cryptographic converter using different ciphers, a password generator, an indentator of the code of several languages (such as Python, Java, C++, Scala, Javascript, Ruby). I implemented also a simulation of several games such as minesweeper, sudoku, and hangman game. I build a script to play chess in 2 player and implement the possibility to play versus the computer, simulated by artificial intelligence.

Personal2024

Education

Ca' Foscari University

MSc IN COMPUTER SCIENCE - CYBERSECURITY

- Specializing in cybersecurity, with a focus on network security, cryptography, and risk management.
- Courses include Advanced Network Security, Cryptography, Cyber Threats and Vulnerabilities, and Ethical Hacking.
- Currently conducting research on emerging cybersecurity threats and solutions.

Venice, ItalySep. 2022 - Nov. 2025

Ca' Foscari University

BS IN COMPUTER SCIENCE - DATA SCIENCE

- Focused on data analysis, machine learning, and statistical modeling.

Venice, ItalySep. 2017 - Jun. 2022

ITIS C. Zuccante

HIGH SCHOOL DIPLOMA IN COMPUTER SCIENCE

- Graduated with a focus on programming, hardware, and software development, gaining proficiency in Java, C and C++.

Venice, ItalySep. 2012 - Jun. 2017

Skills

Graphic Design	Adobe Photoshop
Web Development	Experienced in front-end web development using HTML and CSS, building responsive and user-friendly websites. Knowledgeable in optimizing web pages for performance and accessibility.
Programming Languages	Advanced proficiency in Java, C, C++, Python, Scala, F# and C#. Proven ability to develop efficient algorithms, work with object-oriented programming, and implement complex systems.
Microprocessors	Hands-on experience with Arduino UNO for prototyping and developing embedded systems, creating real-time data collection and control applications.
Database Management	Experienced with PostgreSQL and MySQL, including database design, query optimization, and managing relational databases for various applications.
Data Analysis	Skilled in using R and Python (Pandas, Numpy) for data analysis, statistical modeling, and data visualization. Familiar with Tsung for performance testing and distributed systems analysis.
Soft Skills	Strong team collaboration and leadership skills, with a focus on problem-solving, public speaking, adaptability, and fostering effective communication in cross-functional teams.
Organization	Proficient in project and time management, with a track record of successfully leading teams, delivering projects on time, and managing multiple tasks in fast-paced environments.
Languages	Fluent in English and Spanish, with a strong interest in learning German to expand communication skills and improve cultural understanding.
Certifications	CISCO CCNA Routing and Switching (Introduction to Networks) and B2 English certification, demonstrating a solid foundation in networking and advanced language proficiency. (I attach the certificate given by CISCO) Introduction to Generative AI Learning Path provided by Google (Introduction to Responsible AI, Introduction to Large Language Models, Introduction to Generative AI)
Organizational and Managerial Skills	Proven ability to organize, manage, and delegate tasks in group projects, ensuring efficient workflow, meeting deadlines, and fostering a collaborative environment.

Interests and Hobbies

I have a variety of interests and hobbies that keep me active and curious. I've been playing tennis for over 15 years, an experience that has taught me resilience, focus, and the value of consistent practice. I also enjoy skiing and admire the determination and strategy displayed by cyclists during challenging stages. These sports instill discipline and a drive to overcome challenges.

I'm passionate about traveling, as it allows me to explore diverse cultures, connect with people from different backgrounds, and gain fresh perspectives. My enthusiasm for technology fuels my curiosity, I love staying updated on emerging trends and innovations, which inspire me with their potential to shape the future.

Last, but not least, I have a growing appreciation for the art of chess, and I find that exploring its complexities helps me think more clearly and creatively. Just as chess is an intricate game of strategy and foresight, it encourages me to approach problems with a more adaptive and thoughtful mindset. Whether I'm analyzing new openings or learning about famous historical games, chess helps me refine my ability to tackle challenges from multiple angles. These activities not only enrich my personal life but also strengthen my ability to adapt and think creatively.