# Lucie Correia

#### **Education**

# Telecom Nancy - Engineering School in Nancy, France

2023 - 2026

MSc in Computer Science and Cybersecurity - 3.7/4 GPA

*Key coursework*: Operational research, Algorithms, Artificial Intelligence (Markov chains, Machine Learning, Deep Learning), Finance (Top Student), Software Security, Operating Systems, Programming, Networks.

### UPC - Polytechnic University of Catalonia, Spain

2025 - 5 months

Erasmus Student: Convex Optimization, Machine learning, Pentest, Data Privacy with R, Business & Finance.

# Buffon High School Paris, France - CPGE MPSI/MP\* - Preparatory classes

2021 - 2023

Intense two-vear preparatory course in Mathematics and Physics for entrance to French Grandes Ecole.

#### **Experiences**

# Founder of a YouTube channel (ITeaser)

**Since 2023** 

Founded and animated a YouTube channel focused on interviews about computer science projects. Managed video editing and communication strategies, surpassing 20k views in just a few months.

### Data Analyst Intern, GS1 France - National Organization for Barcodes

Summer 2024

Contributing to the Digital Product Passport (DPP) project by designing Excel solutions and producing detailed reports.

# Secretary, Cybersecurity Club (Hacking'TN)

2024 - 1 year

Created medium-level CTF challenges (programming, networks, web, osint) for a self-hosted competition and participated in CTF competitions such as GreHack, TRACS and LeHack Paris, achieving top 6 rankings with my team.

#### Vice Treasurer, Junior Enterprise (TNS)

2024 - 1 year

Managed a 10k budget, developed forecast budgets, supported commercial development, and contributed to strategy.

#### **IT Projects**

**HFT - 2025**: Developing a C++/Python high-frequency trading system using WebSockets (Binance API) and NATS for messaging. Performance monitoring via Prometheus/Grafana with backtesting and risk analysis (VaR, Sharpe Ratio).

**Attacks Detector - 2025 :** Developed an intrusion detection system for DDoS using ML (SVM, ANN, Decision Trees) with Keras/TensorFlow. Processed data via InfluxDB/Telegraf. Deployed the system with Docker on GCP (Cloud Run).

**Trading algorithm - 2025**: Developed and backtested a Python trading algorithm and a fine-tuned model to predict Bitcoin prices with the IBM TTM model. *Time Series, Zero-Shot, Simple Moving Averages, RMSE, large dataset.* 

Web App - 2025: Designed a Python application for option pricing with automated reporting. Black-Scholes, Monte Carlo.

Home Server - 2024: Configured and managed a personal NAS with Unraid OS, hosting services. Networks.

Compiler - Group Project in 2024 : Developed a Mini-Python Compiler in Java with LL1 grammar. Lexer & Parser.

### Skills

Programming Language: Python (NumPy, Flask, Pandas, CVXPY, Scapy, pwntools, TensorFlow, Scikit), Java, C, C++.

Software: Git, Docker, Linux, Bash, GCP, VirtualBox, Wireshark, Metasploit, Burp Suite, JetBrains IDEs.

Database & Reporting: SQL, SQLite, Excel, VBA, Power BI, Latex, Jupyter Notebook.

Soft Skills: Leadership, Entrepreneurship, Analytical Thinking, Problem-Solving, Teamwork, Communication.

#### Certifications

**Introduction to Trading, Machine Learning & GCP**: Vertex AI, Big Query.

Quantitative Research Job Simulation by JPMorgan: Market Forecasting of Gas in Python, Credit Risk Analysis.

<u>Advanced Portfolio Construction by EDHEC</u>: Factorial Investment, Risks and Asset optimization in Python.

Financial Markets by Yale University: Investment Management, Portfolio Theory, stocks & bonds, financial models.

**TOEIC - English Proficiency**: 890/990 (B2 Level) for listening and reading.

Project Gestion by Centrale Lille: Agile Methodology.