

# Guillaume CAPITAN

## Off-Cycle Quantitative Finance Internship

### Languages

#### Spanish

Logré aprobar mi Cervantés C1.

#### English

Scored 111/120 in TOEFL, reached C2-level at Télécom (highest grade).

#### French

Ma langue maternelle.

### Sports

#### Martial Arts

Karate black belt with 15y+ training, boxing, some competitions...

#### Running

Finished Amsterdam Marathon 2022

#### Soccer

Was part of Télécom 2 team.

### Interests

#### Finance

Attended algo-trading sessions with TBF, opened an account on several crypto-trading platforms.

#### Power markets

I love the idea of a system that must not fail and that of global efficiency.

#### Music - Personal and Conservatoire

Production (FL Studio), DJing, pianist for 15+ years, music theory, singer...

#### Gardening

Did an internship in a tree nursery. I grow fruits, flowers, aromatic herbs.

#### Sea & Mountain hobbies

Scuba diving & boat driving licensed. Also love skiing (freeride) & climbing.

### Personal Projects

#### Writing Projects [PACE / Personal]

'Terra Incognita - First trips to America', a history book on colonialism - My own series SIROM.

#### TIPE project [End of CPGE]

Designed and built a miniature model of a tidal power plant and its theory.

#### TPE project [End of High School]

Topic of our research : 'Can we predict an inversion of the Earth's magnetic poles ?'

### Contacts

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### Education

#### MSc in Quantitative Finance [M2MO - ex DEA Laure-Elie]

From September 2022 to April 2023 **Université Paris-Cité** Paris, France  
Finance & Statistics specialization. Course examples : Stochastic control, Markov, Risk, XVA, Algo-trading, ML for finance, Diffusion processes, Hedging...

#### Master's degree in Engineering [M1 MACS / TSIA]

From September 2020 to July 2023 **Télécom Paris** Palaiseau, France  
Highly quantitative majors : signal processing for AI (deep learning, optimization, practical and theoretical ML...) and random modeling (martingales, markov chains, brownian motion...). Télécom Paris is France's #2 top engineering universities according to L'Étudiant ranking.

#### MPSI/MP\* CPGE and National Exams certification

From September 2018 to August 2020 **CPGE Blaise Pascal** Orsay, France  
Math-Physics elite preparatory classes (the class I joined was #1 for 3 years already). Took the national exams in 2020, during Covid outbreak (special procedures for exams) and got into Télécom Paris.

#### Baccalauréat S - Math specialization [highest honors]

From 2015 to 2018 **Lycée Parc de Vilgénis** Massy, France  
Did occasional tutoring, made math videos for my schoolmates.

### Computer skills

#### Python

My main programming language. Used it for all my AI tasks and differential equations solving at Télécom & Paris Cité. Image & sound processing, GAN, CNN...

#### C / C++

Expert in C / C++ (took classes in Télécom and Paris Cité both). I love embedded systems and high-performance tasks. Coded in C++ for the Free5Gran PAF project.

#### Java

Proficient in java. Coded a maze solver, my PACT project...

#### Various software skills

Git (mine : @GuillaumeCIA), SQL, Windows Office, Unix, VBA, Cybersec tools, react...

### Student Organizations

#### President of THANG [English Theater]

We wrote the play, acted it, performed it live at Christmas. I was also part of the musicians on stage and helped writing the musical themes.

#### Co-President & Treasurer of Télécom Imp'hackt [Cybersecurity association]

Applied computer science on root-me, deeper understanding of html, css, js...

#### Vice-President of TSM - Télécom Sound & Magic [Sound & Lighting association]

- Managing DJ stage-building crews, dealing with risks and unexpected events
- Equipment maintaining and event-planning
- Working with our school's administration & the student's union

#### Member of TBF - Télécom Business & Finance

Algo-trading sessions, VIP guests conferences, networking...

### Other Projects

#### 2021 End-of-Year group project - Free5Gran open-source project [PAF]

Helped a PhD student on the open-source cybersecurity 5G project 'Free5Gran'. Very rich and complex project (Telecomms hardware, C++, Faraday cage...)

#### 2020 Year-long group project - Fal'cile app [PACT]

We built an inclusive app for the mentally handicapped to help simplify / translate documents using NNs, a distant image server, written in Java, Python.

Cybersecurity competitions [ANSSI FCSC2020, FCSC2021] [EBEC2021]