Thomas **Winninger**

Student in gap year

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Sckathach   💼 Thomas Winninger

Whoami?

Aka *the quantum warlock, the masked camel, the fanOfThermodynamics, the pipe and clouds engineer, the whale orchestra conductor*, or just **Sckathach**. I'm a french student at Télécom SudParis, and soon, a ML(4SEC) researcher!

Fond of mathematics and physics with a strong interest in computer sciences, I choose an engineering path, to be able to create things, and most importantly, break things. I started cybersecurity at Télécom SudParis, where I enjoyed crafting and toying with technology. However, I found that I needed more mathematics in my life. As I discovered AI security a bit earlier, I knew the best place for me was in the AI field: with loads of mathematics everywhere. And I can still create and destroy things! And there is also physics! And there are also graphs! That is why I am currently in a gap year, so I can tryhard mathematics and AI before my PhD.

My interests range from geopolitics to the depth of spinning blackholes, but I'm currently focused on the thing I find the craziest at the moment: **Mechanistic Interpretability**.

Education

Master of Science in Cybersecurity

Institut polytechnique de Paris (IPP)   2024 - 2026

To finish my engineering curriculum properly. I'm planning to continue with a PhD in AI Security (INRIA/CEA?? 🤞🤞🤞)

Engineering Degree

Télécom SudParis   2022 - 2026

The French equivalent for universities to become engineers or researchers. Even though Télécom SudParis offers general scientific courses in mathematics and physics, there is a focus on telecommunication sciences (information theory, signal theory with our best friend Fourier, graph theory, etc.), which is ideal to learn cybersecurity. I participated to the research curriculum which allowed me to take the time to work on adversarial attacks on graph neural networks and model poisoning (CNN).

Experience

Research internship in AI security

Thales   2024 - Present

To start my gap year, I wanted to have an experience at the european leader of defence: Thales. The team is brillant, and I can fully focus on LLM attack and defence, which is exactly what I was looking for. I can even talk quantum telecommunications and graph theory, the dream...

Cybersecurity training, cloud management, and more...

HackademINT   2023 - 2024

HackademINT is the cybersecurity club at Télécom SudParis. That's where I spent most of my time, learning about cybersecurity, organising competitions and also training other people. For example, I gave training courses on Tuesday evenings on AI attack, web attack and geopolitics. During the competitions organised by the club (404CTF, Hacktion), I managed the Kubernetes infrastructure and created challenges, particularly in AI security (with INRIA), and quantum physics (QKD attack for example).

Skills

Languages	**Python**, **Ocaml**, Typst, TypeScript, Rust, Lua, C, Bash
Spoken Languages	**English**, **French**, Korean
Frameworks/ Other	**PyTorch**, PyG, Docker, Podman, Kubernetes, Qiskit, Sage