







I am a graduate of École Polytechnique and Imperial College London, currently in the first year of my doctoral studies at École normale supérieure, working within the ANTIQUE research team under the supervision of Xavier Rival. My research focuses on applying Abstract Interpretation to the **static analysis of concurrent programs sharing complex heap data-structures** such as lists or trees. In addition to program verification, I am also interested in computer architecture, operating systems and networks, and particularly the security challenges related to their design and operation.

## Education

- 2023– 2026  **École normale supérieure - PSL, Ph.D. Studies in Computer Science**, France, Paris.  
Supervisor: Xavier Rival.
- 2022 – 2023  **Imperial College London, Master of Science in Advanced Computing**, UK, London.  
Obtained with Distinction
- 2019 – 2022  **Ecole Polytechnique, Master's Degree in Engineering**, France, Palaiseau.  
France's leading master-level school of science and engineering.
- 2017 – 2019 LLG **Lycée Louis-le-Grand, Two-year intensive scientific undergraduate program**, France, Paris.  
Top-level post-secondary educational institution providing intensive courses in Maths, Physics and Computer Science.

## Experience

### Professional

- Apr. 2023 to Sep. 2023  **Formal analysis of the security properties of cloud FPGAs – Master Thesis, Imperial College**, UK, London.
  - Definition and implementation of an information flow analysis for hardware designs, enforcing non-interference among data from multiple users accessing the circuit sequentially. This analysis determines whether a design can be securely deployed on a time-multiplexed FPGA shared among multiple users.
  - Awarded the *Distinguished Project* status
- Mar. 2022 to Aug. 2022  **Orange Labs, DNS acceleration using eBPF – Research internship**, France, Châtillon.
  - Implemented an in-kernel caching DNS resolver able to handle requests before the execution of the network stack.
  - *Distinguished Research Internship award* from Ecole Polytechnique.
- June 2021 to Aug. 2021  **Algonomia, Full stack Developer – 3-month internship**, France, Levallois-Perret.
  - Designed scripts for configuration and deployment of platform's instances, as well as a web interface for instances administration, in a containerised environment (Docker, Kubernetes).

### Commitments

- Jun. 2024 **SAS 2024, Artifact Evaluation Committee**, Reviewer
- Jan. 2024 **POPL 2024, Audiovisual Student Volunteer**

### Student activities

- Dec. 2020 to Nov. 2021  **École Polytechnique Students' Union, External Relations Officer - Board member**

## Skills

**Programming** Experience using Python, C, C++, Java, Bash, OCaml, Assembler, L<sup>A</sup>T<sub>E</sub>X, Git.

**Languages** **French** : Native Language. **English** : Fluent, Toefl IBT : 106/120 (2021).

**General** Adaptability, independant work and teamwork, good oral and writing skills.

## Personal Interests

- Music** Saxophone: Certificate of Musical Studies from the Conservatoire of Bordeaux obtained in 2017.
- Hobbies** Badminton, Foosball, Music, Challenges.