PROGRAMMING LANGUAGES

Python, C, LaTeX

Isabelle(HOL), Ocaml, Git

Java, Java/TypeScript

B (Atelier B)

HTML, CSS, React

Go, Assembly

LANGUAGES

French Native

English IELTS C1

German Goethe Zertifikat B2

CONTACT

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vincent-trelat

VINCENT TRÉLAT

PhD Student & Engineer in Computer Science specialized in Formal Methods and their Applications

EDUCATION

Loria, Inria Nancy – Grand Est, Nancy, France 10/2023 - 10/2026

PhD Student

- PhD supervized by Stephan Merz and Sophie Tourret at the Lorraine Research Laboratory in Computer Science and its Applications (Loria): Enhancing B Language Reasoners with SAT and SMT Techniques.

Technical University of Munich, CIT Department 2022 - 2023

Garching, Munich, Germany

- Exchange during Winter Semester, Formal Methods: *Automata and Formal Languages*, Prof. Dr. J. Esparza, *Semantics* and *Lambda Calculus*, Prof. Dr. T. Nipkow, *Advanced Computer Architecture*, Prof. Dr. H. M. Gerndt, *Recent Advances in Model Checking*, Prof. Dr. Jan Křetínský

École Nationale Supérieure des Mines de Nancy 2020 - 2023

Engineering student, Nancy, Grand-Est, France

- **Computer Science Department**: Foundation of Computing, Programming Languages, Secure Coding, Software Engineering, Cyber-awareness, Data Analysis, Deep Learning. Specialization in **theoretical computer science** and **formal methods**.
- Award of a grant for academic excellence by the Grand-Est region.

CPGE in Science (*Higher school preparatory classes*) 2018 - 2020

Lycée Pothier, Orléans, France

- A French two-year intensive undergraduate program in maths, theoretical physics and computer science prior to the most prestigious French colleges and universities.

Highschool, Scientific stream 2015 - 2018

Lycée Charles Péguy, Orléans, France

- Scientific Baccalaureate with European distinction in English with highest honours and congratulations from the jury.

PROFESSIONAL EXPERIENCE

TUM, Munich, Germany 03/2023 - 08/2023

Research internship supervized by Prof. Dr. Tobias Nipkow

Formal verification in Isabelle/HOL of Hopcroft's algorithm for minimizing DFAs including runtime analysis, based on previous work of Peter Lammich and Thomas Türk. GitHub repository: **VTrelat/Hopcroft_verif**.

Clearsy, Aix-en-Provence, France 05/2022 - 09/2022

Formal Methods R&D Engineer Internship

Formal justification of the safety of the real-time execution of the Clearsy Safety Platform (CSP) with the B Method and Isabelle/HOL.

Loria, Nancy, France 09/2021 - 08/2022

Research Internship in Formal Methods

"Formal verification in Isabelle/HOL of an algorithm computing the strongly connected components of a graph", **publication** in the **Archive of Formal Proofs**.

Private teacher (Math, Physics and Computer Science) Casual

PROFILE

- Semi-professional photographer, former trumpet player and self-taught guitarist.
- **Advent of Code**: participation in 2021 and 2022