



## 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

Engineering Computer Science student specialized in Formal Methods and their Applications interested in a six-month internship

## EDUCATION

Technical University of Munich, CIT Department  
Garching, Munich, Germany

2022 - 2023

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

École Nationale Supérieure des Mines de Nancy  
Engineering student, Nancy, Grand-Est, France

2020 - 2023

- 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  
Lycée Pothier, Orléans, France

2018 - 2020

- 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  
Lycée Charles Péguy, Orléans, France

2015 - 2018

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

## PROFESSIONAL EXPERIENCE

TUM, Munich, Germany  
Research internship supervised by Prof. Dr. Tobias Nipkow

03/2023 - 08/2023

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](#).

Clearys, Aix-en-Provence, France  
Formal Methods R&D Engineer Internship

05/2022 - 09/2022

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

Loria, Nancy, France  
Research Internship in Formal Methods

09/2021 - 08/2022

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

Valve Précision, Saint-Michel-sur-Orge, France  
Factory Operator Internship

06/2021 - 07/2021

Private teacher (Math, Physics and Computer Science)

Casual

## PROFILE

- Semi-professional photographer, former trumpet player and self-taught guitarist.
- Advent of Code:** Best rank in 2021: 261 / 230,000 (approx.), Best rank in 2022: 186 / 250,000 (approx.)