

# Sascha Roth

STUDENT IN CRYPTOGRAPHY AND THEORETICAL COMPUTER SCIENCE

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## Education

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### Engineering school

Palaiseau, France

TÉLÉCOM PARIS (INSTITUT POLYTECHNIQUE DE PARIS)

September 2023 - August 2027

- Leading French institution in computer science, equivalent to a master's degree
- Majors in applied algebra and theoretical computer science
- Minor in data science
- Project: benchmarking cryptographic primitives for a zero-knowledge signature protocol
- GPA: 4 / 4
- Courses: foundations of computer science, logic and proof theory, formal verification, complexity theory, advanced algorithms, advanced data structures, abstract algebra, computer algebra, introduction to algebraic geometry, cryptography, quantum technologies, information theory, error-correcting codes, game theory, combinatorial optimization, continuous optimization, measure theory and probability theory, statistics, machine learning, databases, Fourier analysis,...

### Preparatory class

Clermont-Ferrand, France

LYCÉE BLAISE PASCAL

September 2021 - June 2023

- Intensive training in mathematics, physics and computer science
- Project: Braess's paradox (algorithmic game theory)

### High school

Clermont-Ferrand, France

LYCÉE GODEFROY DE BOUILLON

September 2018 - June 2021

- *Baccalauréat*: with honors (17.6 / 20)
- Specializations: mathematics, physics and chemistry, engineering
- European section

## Experience

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### Research internship in cryptography

Palaiseau, France

TÉLÉCOM PARIS (INSTITUT POLYTECHNIQUE DE PARIS)

August 2025 - January 2026

Design and implementation of a lattice-based signature protocol

Supervisor: Matthieu Rambaud

### Mountain refuge assistant

Saint-Martin, Switzerland

CABANE DES BECS DE BOSSON

July - August 2024

Personal development training as part of my studies at Télécom Paris

## Personal projects

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### CryptoHack

Among the top 700 players (among > 100 k) on the platform CryptoHack

### Personal website

Personal / portfolio website: [sroth63.github.io](https://sroth63.github.io)

## Skills

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**Languages** French (native), English (fluent), German (advanced)

**Programming** Python (SageMath, NumPy), OCaml, C, Java, HTML, CSS, JavaScript, SQL, Rocq

**Tools** Linux, Git, LaTeX, Typst