Sascha **Roth**

Student in cryptography and theoretical computer science

sascha.roth@telecom-paris.fr sroth63 Sascha Roth

Education

Engineering school

Palaiseau, France

Télécom Paris (Institut Polytechnique de Paris)

September 2023 - August 2027

- 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, chemistry and engineering
- European section

Experience

Research internship in cryptography

Palaiseau, France

Télécom Paris (Institut Polytechnique de Paris)

August - December 2025

Design and implementation of a lattice-based signature protocol

Mountain refuge assistant

Switzerland

Cabane des becs de Bosson

July - August 2024

Personal development training as part of my studies at Télécom Paris

Skills

Spoken languages	Frenche (native), English (fluent), German (advanced)
Programming	Python (SageMath, NumPy), OCaml, C, Java, HTML, CSS, JavaScript, SQL, Rocq
Tools	Linux, Git, LaTeX