

# CANTALOUBE

## Théo

### FORMATION

**Ph.D. at INSA Lyon in the CITI laboratory in Emeraude team**  
Optimisation of arithmetic operators for computational frugality

*September 2025 → December 2028*

**Graduate School of Engineering in Applied Mathematics and Computer Sciences in Grenoble (France) (ENSIMAG)**

Double degree MMIS (Mathematics, Modelling, Imaging, Simulation) and ORCO (Operational Research, Combinatorics and Optimization)

*September 2022 → June 2025*

**Intensive study course preparing for the competitive entrance examinations to the Grandes Écoles (French highly-selective institutions) in Toulouse (France)**

*September 2020 → June 2022*

**Scientific baccalaureate in Toulouse (France)**

*September 2017 → June 2020*



### SKILLS

**Languages** • English: C1 (TOIEC B2), Spanish : B2, Mandarin: A2, French: C2 (native)

**Computer science skills mastered:**

- Advanced: Java, C++, Python, Latex, Git /
- Medium: C / Basic: VHDL, R

### PERSONAL INFORMATIONS



05/12/2002



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Lyon (France)



French



Driver's license



### EXPERIENCES

#### Research internships

- Graduation internship in INSA / Inria in Émeraude team (March → July 2025) : Arithmetic optimization of logic circuits for embedded computing
- Internship in an algorithmics laboratory in Taiwan (June → August 2024) : Comparative study of 2 dual algorithms of box-counting for fractal graph dimension computation

#### School projects carried out

- Team project to develop a Deca compiler (subset of Java) (2023–2024)
- Development of a JPEG decoder in C (2022)
- TIPE (Supervised Independent Research Projects) (2021–2022): Applications of fractal analysis to medical imaging

#### Volunteering

- ENSIMAG Arts Office (2022- 2024): Graphics and Newspaper Section
- "Gragna'mômes" and "Gragna'rock" festivals in Gragnague (France) (2013 - 2024): Artistic and creative activities, catering and logistics

#### Work experience

- Sport center agent in L'Union (France) (2023): Maintenance of sports infrastructures and green spaces

### INTERESTS

- Martial Arts: Taekwondo (11 years), Jujitsu (1 year), Karaté (1 year)
- Reading, writing
- Plastic Arts (10 years)