

Valentin Lachaise

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ACADEMIC BACKGROUND

Institut Mines-Télécom Atlantique (ex Mines de Nantes, France) **2025 - present**
1st year : general engineering.
2nd year : **Development and Management of Nuclear Installations.**

Michel de Montaigne High School (Bordeaux, France) **2022 - 2025**
Preparatory Classes for the Grandes Écoles (CPGE) - **PCSI/PC***.

D'Arsonval High School (Brive-la-Gaillarde, France) **High School**
Scientific Baccalaureate, **Highest Honors**, advanced mathematics and Latin options.

PROFESSIONAL EXPERIENCE

Road Works Operator Internship (Public & Private) : Hands-on team immersion on construction sites (asphalt, general labour, laboratory, plant). Field discovery of the various civil engineering trades, supervised by a surveyor.

Internship at the Paris Institute of Astrophysics (Institut d'Astrophysique de Paris) : Discovery of careers in astrophysics. Discussions with academic researchers from different fields to get a sense of how scientists work and of tomorrow's challenges.

PROJECTS & COMMITMENTS

Partnerships and Sponsors Manager of TED^x EULiST x IMT (Paris) : European event (planned for February 2027 with ~1100 expected attendees), managing a budget of ~50k €, sponsorship strategy, logistics and team coordination.

IMT Group Ambassador (Student Union - EULiST) : Student representative, strengthening international inter-school ties and relations with academic/industry partners.

LethalBot - PRONTO project (Feb - May 2026) : Autonomous line-following robot, IMT Atlantique student project. Design of a rolling base that follows a black line and carries up to 20 kg while weighing under 2 kg. Modelled in SolidWorks and Blender, 3D-printed and laser-cut at the FabLab, programmed in CircuitPython (Raspberry Pi Pico W, OV7670 camera, line detection by linear regression). Designed the project website: lethalbot.pages.dev.

TiPE - Characterisation and optimisation of a microwave heating process (2024/2025, PC*) : Study of microwave field inhomogeneities (Mie resonances) in potatoes. Agar-agar waveguides modelled in SolidWorks and 3D-printed, Maxwell's equations solved in Python, temperature mapping with a thermal camera, study of evanescent waves and of the energy balance, application to an ester synthesis.

SKILLS & INTERESTS

Technical Skills : Python programming (Numpy, Pandas, PyTorch, Scikit-learn), Java programming, Project management, Leadership, Communication, Problem solving, SolidWorks, Blender, Premiere Pro, Inkscape.

Interests : Sports (athletics - French championships, volleyball), Astrophysics, Technology watch, Student associative involvement, Music (piano), Drawing.

LANGUAGES

French : native language **English** : advanced (C1) **German** : basic (B1)