Pierre-Louis Filoche

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Professional objectives & interests

To work with cutting-edge industries by applying digital technologies, such as artificial intelligence and data processing, to address global challenges in the field of biotechnology.

Education

Ecole Normale Supérieure, Université Paris Saclay   Since Sept. 2023

- Master 1 in Electrical Engineering, at the interface between digital and physical systems
- Third year of Bachelor's degree in Engineering, with a specialization in Electrical Engineering, Digital Systems, Power Conversion, and Physics
- Coursework : Probabilities, Signal and Image Processing, Optimization, Electrical machines, Power Electronics, Statistical Physics
- Associative Involvement : President of the Sailing Association - Member of the Student Council - Secretary of the FabLab

Lycée Jean-Baptiste Say,   2021-2023

- Classes Préparatoires aux Grandes Ecole : PTSI-PT*
  Intensive 2-year class preparing for entrance examinations to the French Grandes Ecoles
- Coursework : Mathematics, Automation, Computer Sciences, Physics, French Literature
- Class Representative

Experience

Supervised research work - ENS   Since Oct. 2024

- Working on the development of a *real-time image processing method* for the characterization of microorganisms in co-culture within a microfluidic system. Exploring the implementation of an *AI-based solution* to enhance the accuracy and efficiency of the characterization process. Supervised by Sakina Bensalem and Mélanie Piétri

Project COBRA - ENS   2024

- Developed an autonomous airship designed to navigate a predetermined path. Collaborated with a team to evaluate and implement various indoor localization systems, including vision and radio technologies.

Private Tutor   2021

- Tutored mathematics to prepare students for the "Brevet" (French national exam)

Project

WEIV - Freshers' Sailing Weekend   2024

- organized a sailing integration weekend for 50 students, managing a budget of €10,000

Hackaton Safran & ENS   February 2024

- Finished second in a hackathon focused on satellite protection, where we developed an innovative solution

Volunteer Youth Worker – LOISIRS PLURIELS   2020

- Supervised children with and without disabilities, ensuring their safety and well-being in a supportive environment

Skills

- English C1, 8 @IELTS
- Spanish B1
- Chinese A2 (HSK1, HSK2, HSK Oral)
- Programming languages: Python, C, JavaScript, HTML+CSS, VHDL

References available upon request.