

Théo Palagi

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EDUCATION

Télécom Paris - Institut Polytechnique de Paris

Sept. 2024 – June 2026

Master of Science in Engineering

GPA: 3.9/4.0

- Best computer science engineering school in France
- Specialized in AI, Computer Vision and Applied Mathematics
- Coursework: Image/Speech/Signal Processing, 3D/Video Vision, Object Recognition, Generative Models, NLP, Deep Learning, ML Optimization, Statistics, Linear Models, Time Series

Preparatory Classes for Grandes Écoles

Sept. 2022 – June 2024

Science Track PCSI/PC - Lycée du Parc, Lyon

GPA: 4.0/4.0

- Intensive program in Mathematics, Physics and CS preparing for entrance exams to top French engineering schools
- Achievement: ranked 512/3731 at national Mines-Ponts exam

Lycée Joliot Curie, Aubagne

Sept. 2019 – June. 2022

Baccalauréat Mention Très Bien avec les Félicitations du Jury

- equivalent to 'A'-level, specialised in maths and physics.
- Coursework: Mathematics, Physics, Chemistry, Philosophy, Optional courses of mathematics.

PROJECTS

PatchMatch Image Editing and Copy-Move Detection | [🔊 Repository](#)

Sept. – Dec. 2025

- Implemented the PatchMatch algorithm for fast approximate nearest neighbor search in image patches.
- Applied and adapted the method to automatically detect and repair copy-move forgeries in grayscale and color images.
- Produced a detailed report analyzing algorithm performance and visual reconstruction quality.

Unsupervised Text Clustering (NLP) | [🔊 Repository](#)

Feb. – June. 2025

- Developed a complete unsupervised NLP pipeline using BERT embeddings and HDBSCAN clustering.
- Applied dimensionality reduction (UMAP) and keyword extraction with TF-IDF weighting.
- Conducted evaluations to measure cluster quality, interpretability, and computational efficiency.

WORK EXPERIENCE

Humanitarian Internship — Shalom Center, Arusha (Tanzania)

Jul. – Aug. 2025

- Provided educational support and managed daily logistics for a center dedicated to children and young mothers.
- Designed a drip irrigation and rainwater harvesting system to optimize water resources.
- Collaborated daily with local staff and international volunteers in a multicultural environment.
- *Since 2024:* Actively partnering with the **AFTED** association to recruit and mentor future volunteers.

Private Tutoring — Mathematics

2024 – Present

- Tutored a high school student (10th grade) in mathematics with personalized lessons to improve understanding and performance.

SKILLS

Programming: Python, SQL, C, TypeScript

Tools and Frameworks: Bert, Scikit-learn, Numpy, Pandas, Matplotlib, Git

Languages: French (Native), English (Full professional proficiency), Spanish (Conversational)

HOBBIES

Football: 12 years of experience developing teamwork and leadership skills.

Tennis: 1 year with Télécom Paris' Sports Office, improving focus and self-control.

Music: Guitar player with a strong interest in music composition and live performance.