



Paul Witkowski

Artificial Intelligence & Software Engineer Student

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🌐 [Paul Witkowski](#) 🐙 [Pauwit](#)

Skills

🧠 AI

Python, Pytorch, Numpy, Scikit-learn, Pandas

</> Programming

C, C++, C#, Java, OCaml, Scala, PostgreSQL, TypeScript

🔧 Tools & DevOps

Git, GitHub, GitLab, Docker, GNU Autotools, Makefile

Languages

French

Native

German

Native

English

C1 / Fluent

Certifications

TOEIC : 985 / 990

Jan 2025

ETS

TOEFL : 104 / 120

Jun 2023

ETS

Volunteer

Prologon

Jan 2026 - Present

Supervise and lead **introductory coding workshops** for middle and high school students within a team of volunteers committed to promoting **computer science education and diversity** in the digital sector.

Interests

🎵 Music

Drummer (High school orchestra and band co-founder)

🎾 Sports

Tennis

Experience

Research Engineer Intern (Computer Vision)

Paris, France

Institut Langevin (CNRS) / Quinze-Vingts Hospital

Sept 2025 – Jan 2026

Designed and integrated **deep learning solutions** into *EyeFlow* software for retinal blood flow analysis via Laser Doppler Holography.

- **AI Model Engineering:** Trained and fine-tuned YOLOv11x models for optic disc segmentation and eye laterality classification.
- **Inference Optimization:** Implemented the entire inference pipeline in **ONNX** to allow local, offline execution within a legacy MATLAB environment, ensuring compliance with strict medical data privacy.
- **Research Output:** Co-authored one **scientific paper** on retinal calibration and laterality classification.

Teaching Assistant (C# / OCaml)

Le Kremlin-Bicêtre, France

EPITA

Sept 2024 – June 2025

Supervised and mentored first-year engineering students in algorithmics and programming. Designed practical labs (TPs), managed evaluations, and performed code reviews.

Production Operator

Vélizy-Villacoublay, France

Landauer Europe

Summer 2023

Managed production workflows and programmed electronic cards in a fast-paced industrial environment.

Projects & Hackathons

Finalist (Top 10/65) - Hi!ckathon Paris

HEC Paris x IP Paris 2025

"InsightEd" - An **AI tool** detecting early signs of student well-being issues using PISA datasets. Implemented a **K-Means clustering** pipeline on psychological indicators to model student profiles. **Ranked 2nd on the technical leaderboard.**

3rd Place - Agentic AI Hackathon

GDG x EPITA Alumni x EPITA, June 2026

Built a **5-agent pipeline** continuously auditing course curricula against the job market and state of the art, **hallucination-checked.**

Real-Time Forest Fire Detection Architecture

EPITA Data Engineering Course Project

Designed a full data architecture for IoT-scale wildfire detection (~10M devices): **Kafka**-based ingestion, **Spark Structured Streaming** for sub-second alert detection, and an **HDFS** medallion data lake for long-term analytics, reconciling conflicting real-time and historical-reporting requirements in a single pipeline.

Symbolic GraphRAG

EPITA Symbolic AI Course Project

Built a **GraphRAG** pipeline combining knowledge graphs with LLMs for multi-hop question answering, extracting entities and relations into an RDF/property graph and applying **community detection** for thematic partitioning. Benchmarked against classic vector RAG on HotpotQA.

Education

EPITA

Computer Science & Engineering

Le Kremlin-Bicêtre, France • 2022 – 2027 (Expected)
Master of Science

Boston University

Computer Science & Engineering

Exchange Semester
Boston, USA • Jan 2024 – May 2024

Lycée Franco-Allemand

Mathematics, Physics, Computer Science

Franco-German Baccalaureate • High Honors
Buc, France • 2022