

JOEY DAVID

Student Researcher

 joey-david.netlify.app  github.com/joey-david  joeydavid99@gmail.com

Background

As an international student with roots in France and the US, I combine rigorous academic training with practical experience building intelligent systems. I'm strongly committed to pushing the boundaries of what AI can achieve.

Education

M.Sc. in Artificial Intelligence

Sep. 2024 – June 2026

Université Claude Bernard

Lyon, France

CPGE / B.Sc. in Computer Science

Sep. 2020 – April 2024

Université Claude Bernard / Oregon State University

With Honors – Lyon, France / Corvallis, USA

American OIB Scientific Baccalaureate

Sep. 2017 – June 2020

Cité Scolaire Internationale de Lyon

With Honors – Lyon, France

Professional Experience

Student Researcher | *INSA Lyon*

February 2025 - June 2025

- Developing a semi-supervised learning model for etiological diagnosis of uveitis, a sight-threatening eye inflammation.

Fullstack Developer - Intern | *Sopra Steria*

April 2024 - July 2024

- Complete design and implementation of a **CV analysis model** based on **natural language processing**.
- Development in **Java**, **Spring**, and **React** of various features, 100% of which were implemented in the *Operation* application, used by *Storengy* to manage France's gas network.

Information Systems Technician | *Hôpitaux Nord Ouest*

June 2023 - August 2023

- Actively maintained and improved IT systems for 10+ hospitals and care centers, resolving over **600 ticketed issues**.

Relevant Projects

[chatbrain.chat](#) | **Pytorch, YOLO_v11**

November 2024 – February 2025

- Developed an application allowing for advanced conversation analysis from multiple sources (e.g., direct text input, logs, screenshots, voice messages). Combined local analytics with an LLM pipeline for detailed insights.
- Implemented a custom fine-tuned YOLO detector to label chat boxes in screenshots for OCR transcription, leading to an inference time of **< 200ms/image** with **≥ 95% accuracy**.

[Agentica](#) | **LLMs, Agentic architecture**

January 2025 – Ongoing

- Collection of modular LLM-powered agents for automation, learning, and research. Features include spaced repetition flashcards, contextual memory, and dynamic task execution.

[Neural Network, From Scratch](#) | **Python, Numpy**

July 2024 – August 2024

- Implemented a pure Numpy neural network achieving multi-class classification across **51 character classes**.
- Engineered efficient mini-batch processing with automated hyperparameter tuning suite.

Skills

Concepts: Machine Learning, Semi-supervised Learning, Natural Language Processing, Neural Networks, Finetuning, Computer Vision, Algorithms, Networking, Backend, DSA, Databases, Deployment, System Design, Statistics.

Frameworks/Languages: Python, C++, JavaScript, SQL, MongoDB, PyTorch, Tensorflow, Pandas, HuggingFace, CUDA, Java, Spring, OpenCV.

Tools/Platforms: UNIX/Linux, Git, CI/CD, TCP/IP, REST, Docker, Kubernetes, AWS, Compilers, VMs, GPUs.

Soft Skills

Communication: Articulate communication, Active listening, English (Native), French (Native), Japanese (Intermediate).

Collaboration: Cross-functional teamwork, relationship building, proactive leadership.

Problem-Solving: Analytical thinking, critical reasoning, resilience, ambiguity navigation, agile mindset.

Interests

Hobbies: Long-distance Hiking, Skiing, Calisthenics, Philosophy, Languages, Chess.

Volunteering :

- Contributed to the deployment of an HIV screening campaign for vulnerable populations in Beaujolais (France). (2021)
- Led an initiative to provide food and water to the homeless of Corvallis (Oregon) during winter. (2023)