# VIDAL ANTOINE

## Fullstack Software Engineer

✉ avidal78390@gmail.com   📞 +33 6 49 42 42 23   🏠 91300 Massy, France   🌐 Website   in LinkedIn   ◯ GitHub

*Passionate about computer science and software development, I am constantly seeking to deepen my understanding of modern technologies and systems. I enjoy contributing to all aspects of development, whether in the front-end or back-end.*

## PROFESSIONAL EXPERIENCE

### Fullstack Developer

**4MTec** - Permanent position at an IT Services Company (ESN)

📅 March 2024 – Present          📍 Montrouge

**Client: Coda Systèmes (September 2025 – December 2025)**
Development of an autonomous gantry equipped with cameras and a screen, enabling real-time detection of Personal Protective Equipment (PPE) worn by users through an embedded AI model:

- Training a YOLO-based AI model for detecting PPE (helmet, vest, etc.)
- Integrating the AI model into a physical gantry: real-time video processing using cameras and AI
- Developing an API ensuring communication between the AI and the interface that clearly displays detected and missing PPE on the screen
- Setting up a database for history logging and tracking entries

Tech stack: **Vue.js**, **JavaScript**, Ultralytics (YOLO), **FastAPI**, SQLAlchemy, **Python**, PostgreSQL, Linux, Docker, Bash, Git, GitHub, Google Cloud Storage

**Client: Coda Systèmes (May 2025 – August 2025)**
Development of a software solution for analyzing ultra-high-speed videos (1000 fps):"

- Recording videos with precise control of camera parameters (resolution, fps, video duration, etc.)
- Optimized playback of recorded videos with frame-by-frame processing for highly detailed analysis, impossible with conventional video players
- Development of drawing and object tracking tools directly on the videos

Tech stack: **Python**, OpenCV, PyQt6, Vimba, Linux, Git, GitHub

**Client: Qarnot (March 2024 – April 2025)**
Redesign of the internal data management website:

- Creation of Vue.js pages and components (front-end), development of the Node.js API (back-end), and management of Sequelize models and the database
- Design and improvement of UI components (cards, lists, forms) to enhance usability
- Bug fixing and refactoring of existing components
- Team collaboration: GitLab code reviews, Jira ticket tracking, contribution to technical documentation

Tech stack: **Vue.js**, **Node.js**, Sequelize, MariaDB, **JavaScript**, Linux, Docker, Bash, Git, GitLab

### Simulation Model Developer – Electricity Market

**EDF R&D** - 5th Year Internship

📅 May 2023 – November 2023          📍 Palaiseau

- Design of a multi-agent simulation tool to study the impact of socio-economic factors (salary, location, etc.) on households' adoption of EDF offers

Tech stack: HTML/CSS, Julia, Linux, Bash, Docker, Git, GitHub

### Data Scientist – Hard Drive Analysis

**LI-PaRAD, UVSQ Paris-Saclay** - 4th Year Internship

📅 May 2022 – August 2022          📍 Guyancourt

- Development of Machine Learning models to predict and detect hard drives likely to fail based on characteristics such as manufacturer, available capacity, number of reads/writes, and more

Tech stack: **Python**, Scikit-learn, NumPy, Pandas, Linux, Bash

## PERSONAL PROJECTS

### JLPTExplorer

**Web application for learning Japanese**

- Fullstack application: **React** interface with a **Node.js** REST API connected to a MongoDB database

### Personal Portfolio

- Developed with **React**

## EDUCATION

### Computer Engineering

**ISTY, UVSQ Paris-Saclay**

📅 2018 – 2023          📍 Vélizy

Object-Oriented Programming, Compilers, Databases, C, Linux, Operating Systems, Computer Architecture, Algorithms, Software Architecture

### Master in High-Performance Computing

**LI-PaRAD, UVSQ Paris-Saclay**

📅 2022 – 2023          📍 Guyancourt

Big Data, Parallelism, Multithreading

## LANGUAGES

- English: B2 (TOEIC 2022: 925/990)
- Japanese: B1

## SOFT SKILLS

Curiosity    Persistence    Rigor    Teamwork

## HOBBIES

🅰 Self-learning Japanese language and culture