Guillaume **Fradet**

AI ENGINEER

☐ (+33) 7 70 79 30 97 | ✉ guillaume-fradet@hotmail.fr | 🏠 guillaume-fradet.com | in fradetguillaume

Visit my website for more information (portfolio, interests, blog posts)

TL;DR

- +4 years of experience in AI research and development.
- Currently building AI agents and LLM-powered workflows.
- Core contributor to globally deployed AI solutions for radiology (from MVP to CE/FDA-certified products).
- Among the first hires and one of the pioneering AI engineers of a medtech startup (now a team of 50+).
- Master's degree in Data Science from École Polytechnique and Engineering degree from ESILV.

Education

École Polytechnique
MASTER 2 IN DATA SCIENCE

Palaiseau, France

2018 - 2019

- Advanced topics in Machine Learning
- Advanced Learning for Text and Graph Data
- Deep Learning
- Reinforcement learning
- Optimization for Data science
- Introduction to Graphical Models
- Big Data Framework (Hadoop, Spark, ES)

- Systems for Big Data Analytics
- Visualization and Visual Analytics for Data Science
- Data Stream Processing
- Machine Learning, Business case
- Big data & insurance
- Data infrastructure (NoSQL)
- Mixed Effects Models for the Population Approach

ESILV
MASTER OF ENGINEERING

Paris - La Défense, France

2014 - 2019

- Major: Computer Science, Big Data and connected objects
- Activities and associations: Member and Communication Manager of the robotics club *DaVinciBot* (participated in the French Robotics Cup 2016 and 2017).
- Example of the classes followed:
  - Machine Learning and clustering
  - Mobile application development
  - Web Application Architectures
  - Adv topics in NoSql databases
  - Embedded Systems: architecture & programming
  - MVC: interfaces and data
  - Inferential statistics
  - Numerical analysis
  - SQL Database
  - Signal processing

Louisiana Tech University
EXCHANGE PROGRAM

Ruston, LA, USA

Fall 2017

- Major: Computer Science
- Courses: Adv data structures & algorithms, Software design & engineering, Computer Networks
- GPA: 4.0 (A)

Online Learning & Certifications

- *Generative AI with Large Language Models* — DeepLearning.AI & AWS
- *5-Day Gen AI Intensive Course* — Google & Kaggle
- *AI Agents Course* — Hugging Face
- *MCP Course* — Hugging Face

Experience

Matrix One
SENIOR AI ENGINEER

Paris, France

Jul. 2025 - Present

- Building AI agents and LLM-powered workflows to support Quality Assurance & Regulatory Affairs professionals.

AZmed
DEEP LEARNING RESEARCHER

Paris, France

Nov. 2019 - Nov. 2023 (4 years)

- Development and continuous improvement of 2 certified algorithms to detect abnormalities on X-rays:
    - Trauma algorithm (CE & FDA): detecting fracture, dislocation, and effusion on any body part.
    - Chest algorithm (CE & FDA): detecting consolidation, pleural effusion, cardiomegaly, pneumothorax, and pulmonary nodules.
- Developed the algorithms from MVP to CE/FDA-certified products.
- Research focus: Object Detection, Domain Adaptation/Generalization, Semi-supervised learning, Continual Learning.
- Company growth: One of the first employees. From 0 to 500+ healthcare centers in production. From 3 to 30+ employees.
- MLOps responsibilities: Integration of the models into Rayvolve software (i.e. code of the inference), defining and developing the deployment process, AWS cost optimization.
- Code owner in the AI team, responsible for code reviews.
- Cross-department collaboration: Served as the point of contact in the AI team for the Dev and Ops. Involved in product choices, HR processes (recruitment, onboarding, culture), and AI training for Business and CS teams.
- Technologies used: Python, PyTorch, AWS, Docker.
- *Blog post:* Domain Adaptation: the key to deploy algorithms on a large scale

Capgemini Engineering
MACHINE LEARNING ENGINEER (INTERN)

Vélizy-Villacoublay, France

April - Sept. 2019 (6 months)

- Project Focus: Applied machine learning methods on radiomic data and deep learning techniques on MRI images to classify, detect, and segment benign and malignant tumors (lipomas and liposarcomas).
- Clinical Impact: Aimed to reduce unnecessary biopsies by enabling direct diagnosis from MRI images, benefiting patients by avoiding invasive examinations and saving medical structures time and resources.
- Research Collaboration: Worked in collaboration with the biomedical imaging research laboratory CREATIS.
- Contributed to a publication in European Radiology Experimental following the internship.
- *Publication:* Prediction of lipomatous soft tissue malignancy on MRI: comparison between ML applied to radiomics and DL
- *Internship report:* Radiomics vs. Deep Learning to predict lipomatous soft tissue tumors malignancy on Magnetic Resonance Imaging

SoftBank Robotics Europe (Aldebaran)
FULL STACK DEVELOPER (INTERN)

Paris, France

April - Aug. 2018 (5 months)

- Developed a web-app archiving system for NAO and Pepper robot test data.
- Application: "A.S.T.R.", a RESTful API-based web application, deployed across SoftBank Robotics.
- Open Source: Application and Python library available on the company's GitHub.
- Key Responsibilities:
    - Elaboration of specifications.
    - Technology choices.
    - Development of the web application (API and website).
    - Development of a Python library.
    - Managing the sending of large files to the server.
    - User management.
    - Advanced archive search.
    - Deployment management.
- Technologies used: Node.js, MongoDB, Express, Python, Git, Docker, Ansible
- *Source code:* the web application and the Python library

Fishfriender
DEVELOPER (INTERN)

Paris, France

June - July 2017 (2 months)

- Automated the data retrieval and processing from partners.
- Inserted the adapted data into the application's database.
- Handled data from Excel spreadsheets and web pages using web scraping.
- Technologies used: Node.js, JavaScript, SQL, JSON

Interests

- Outdoor sports: climbing, hiking, running, mountaineering, scuba diving
- Traveling: spent 2024 on international travel