



# Yacine CADI-BOUREGHDA

Junior Machine Learning Engineer @EPITA @ Sorbonne University  
Data Science | Deep learning | Data Engineering | Applied Mathematics

## Education

**Master's in Computer Science - AI & Computer vision** 2024 - 2025

### Sorbonne University, Paris

Joint degree with Telecom Paris and EPITA, focused on Artificial Intelligence ("Image track"), Deep learning, Advanced Optimization, Pattern Recognition

**Master's in Computer Engineering - Diplôme d'ingénieur** 2022 - 2025

### EPITA, Paris

Graduated from EPITA, a top-tier French engineering school in computer science, with a 5-year program in software engineering, applied mathematics, data science and data engineering.

**Major : Artificial Intelligence**, combining advanced theory with a strong hands-on training in implementing, optimizing, and deploying machine learning models.

**ENSEEIHT, Toulouse**

2021 - 2022

One year in French "Grande école" offering high-level interdisciplinary training in computer science and mathematical modeling

**Classes préparatoires CPGE (PCSI-PSI)**

2019 - 2021

Two-year intensive program in Mathematics and Physics, for competitive engineering school entrance exams ("Grandes Écoles") at Lycée Michelet (Vanves)

## Experience

**Siemens Healthineers, Princeton, USA**

Mar 2025 - Oct 2025

### End-of-Studies Research Internship

Conducted research on Generative AI for medical imaging, focusing on diffusion models for CT-scan denoising and super-resolution. Designed and experimented with deep generative architectures to enhance photon-counting CT image quality, leveraging recent advances in deep learning and image reconstruction

- PyTorch | Generative AI | Diffusion Models | Deep Learning | Transformers

**EPITA R&D Laboratory, France**

Feb 2024 - Feb 2025

### AI Research Internship

Developed and implemented a neural network for brain MRI pathology segmentation, integrating Monte Carlo Dropout and Deep Ensembles to enhance prediction reliability., with the objective to identify tumors and predict their progression

- TensorFlow | Keras | Image Processing | Deep Learning

**BNP Paribas**

Sep 2023 - Jan 2024

### Data Engineer Internship

Contributed to the People Analytics team by developing end-to-end data workflows and predictive analytics using Python, SQL, and Dataiku. Applied machine learning and data visualization techniques to optimize HR processes and support data-driven decision-making

- Python | SQL | Pandas | Machine Learning | Dataiku | Agile

Machine Learning Engineer with strong foundations in mathematics acquired during preparatory classes, strengthened with hands-on computer science and data science training at EPITA, and completed by academic background with deep learning and applied mathematics at Sorbonne University.

My recent research internship at Siemens Healthineers in Princeton deepened my experience with diffusion models and generative AI, while earlier roles at BNP Paribas and the EPITA R&D Lab strengthened my capabilities in data engineering and deep learning.

## Contact



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Age : 24, French



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## Technical skills

- **Programming :** Python, SQL, C/C++, CUDA, OOP
- **Architectures :** CNNs, Transformers, GANs, Diffusion models, Autoencoders.
- **Machine Learning Frameworks :** PyTorch, TensorFlow, Keras, Scikit-learn, Pandas, Hugging Face
- **Dev & MLOps :** Git, Docker, REST APIs (FastAPI/Flask), CI/CD basics, TensorBoard, W&B.
- **Data Engineering :** Dataiku, ETL pipelines, preprocessing, structured/unstructured data.
- **Databases :** MySQL, MongoDB, Neo4j, Elasticsearch

## Languages

English : Fluent (C2 level)

Japanese : Intermediate