



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**.

ENSEEIH, 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

Developped 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
- 📍 47 Boulevard du lycée, Vanves

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