Amine Ait Elamiri

AI MEng & Telecommunications Engineering Candidate | Applied Machine Learning
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Profile

AI MEng student at the University of Cincinnati in a dual-degree program with ENSEIRB-MATMECA in France. My experience includes training and evaluating PyTorch audio and image classifiers, MATLAB research simulations and testing AI-powered software. Seeking AI/ML and AI software engineering opportunities after graduation in May 2027.

Education

University of Cincinnati, College of Engineering and Applied Science — **Cincinnati, OH**
Master of Engineering in Artificial Intelligence — *Aug 2026 - May 2027 (expected)*

- Relevant coursework: Artificial Intelligence, Machine Learning, Deep Learning, Intelligent Systems, and Innovation and Design Thinking.

ENSEIRB-MATMECA - Bordeaux INP — **Bordeaux, France**
French Diplôme d'Ingénieur in Telecommunications (master's-level) — *Sep 2024 - May 2027 (expected)*

- Scholaro-converted GPA: 3.525/4.00; ranked 2nd out of 58 students in 2024-2026.
- Relevant coursework: digital signal processing, wireless communications, information theory, machine learning, computer networks, algorithms, and data structures.

Lycée Michel Montaigne — **Bordeaux, France**
Postsecondary Preparatory Program - Mathematics & Physics (CPGE, MP) — *2022 - 2024*

- Selective, intensive two-year program in advanced mathematics and physics, preparing for competitive entrance exams to France's leading engineering schools (grandes écoles).

Experience

University of Manitoba | Mitacs Globalink Research Internship — **Winnipeg, MB, Canada**
Mitacs Globalink Research Intern — *May 2026 - Aug 2026*

- Developed MATLAB simulations of integrated sensing and communication systems under Prof. Amine Mezghani, modelling a two-port leaky-wave antenna and an interference-aware scheduler.
- In a separate post-internship simulation study, explored maximum-likelihood angle estimation from two-feed pilots.

DIGIFAB — **Casablanca-Settat, Morocco**
Quality Assurance and Testing Engineer Intern — *Jun 2025 - Jul 2025*

- Designed and executed 10 functional test suites for an AI-powered document-generation platform, validating end-to-end behavior and documenting defects in Azure DevOps.

Selected Projects

Songsored - Audio Word Detection — **Python | PyTorch | Mel-spectrograms**
Personal project, ongoing

- Building Songsored to detect selected words in Moroccan rap audio and, eventually, censor them. Trained a PyTorch CNN on mel-spectrograms of short vocal clips.
- Compared the CNN with a speech-encoder approach and reviewed false positives to see where the detector still breaks down.

Skin Lesion Classification — **Python | PyTorch | ResNet18**

- Compared a custom CNN with a partially fine-tuned ResNet18 for binary skin-lesion classification, including experiments with data augmentation and training settings.
- ResNet18 scored 95.55% (1,911/2,000) on an evaluation set used during development. Analyzed classification errors, including false negatives.

POLARIS - Polar Codes for Physical-Layer Security — **Python | pyAFF3CT | NumPy**

- Co-developed a polar-code wiretap demonstrator in a seven-person team, implementing and validating subchannel selection, binary-channel simulations and bit-error-rate analysis in Python.
- Selected as one of two winning Semester 8 projects with Thales mentorship.

Technical Skills

Machine Learning: Python, PyTorch, torchvision, scikit-learn, CNNs, transfer learning, preprocessing, model evaluation, error analysis
Software & Testing: Object-oriented Python, C, Git, Azure DevOps, functional testing, defect reporting, algorithms, data structures
Data & Engineering: NumPy, pandas, SQL, MATLAB, OpenCV, digital signal processing, wireless-system simulation
Languages: Arabic (native), French (native), English (fluent, IELTS 8.0 overall)