

ASTRUC MATHIEU

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SUMMARY

Engineering student specializing in Artificial Intelligence and Big Data, with strong skills in programming, machine learning, and process automation. Curious and motivated, I thrive on challenges and continuous learning. Actively seeking opportunities to apply my expertise and contribute to innovative projects in AI and data science.

WORK EXPERIENCE

Intern Researcher - NTNU (Norway)

Internship 2025 - 3 months

Research internship focused on social robotics and real-time AI systems.

- Developed real-time gesture-based interaction with the NAO social robot.
- Built a conversational assistant with the Reachy robot, optimizing response times, dialogue flow, and human-in-the-loop interruption handling.
- Designed a Robot-Robot Interaction (RRI) loop enabling NAO and Reachy to interact.

Work expected to contribute to two scientific publications.

Data Engineer Junior - Banque de France

Internship 2024 - 3 months

- Data Scraping Automation: Developed Python scripts integrating Elasticsearch for large-scale data scraping, enhancing data processing for AI models like Retrieval Augmented Generation (RAG).
- ASR Integration: Utilized Automatic Speech Recognition (ASR) to convert speech to text, improving automated spoken data analysis.
- Workflow Automation: Leveraged Selenium for efficient data retrieval and workflow automation.

Electronic Technician - Via Electro

Summer Job 2023

- Installed and maintained electronic security, access control, image and sound systems for major clients and large-scale projects. Managed network and computer rack systems.

EDUCATION

ESAIP – Graduate School of Engineering - Angers, France

Sep 2021 - Jun 2026

- Engineer's Degree (5-year program)
- Specialization: Artificial Intelligence & Big Data
- Grade: ECTS A (highest, Top 10%)

Universidad Politécnica de Madrid (UPM) - Madrid, Spain

Sep 2025 - Feb 2026

- Exchange semester focused on advanced IT and data sciences, including machine learning, cloud computing, programming, and large-scale data processing architectures

SeAMK - Professional Studies in Technology - Seinäjoki, Finland

Jan 2024 - May 2024

- Exchange semester focused on IT and engineering courses, including C++, C#, embedded systems, object-oriented programming, artificial intelligence, electronics labs, and automation projects with Unity and TwinCAT.

Lycée Jean Perrin - Marseille, France

Sep 2018 - Jul 2021

- High level Athlete and Basket-Ball Training academy BAC - Specialty Physics and Human Sciences, Maths option

ADDITIONAL INFORMATION

- **Programming & Development** : Python, C#, C++, Linux shell, Version control (Git/GitHub/GitLab)
- **AI & ML**: LLMs, Fine-tuning, Computer Vision, Speech Recognition, Deep Learning, GPU-accelerated inference & real-time AI systems
- **Frameworks & Libraries** : PyTorch, TensorFlow, Hugging Face, scikit-learn, Keras, NumPy, Pandas, MATLAB/Octave, Azure AI
- **Project Management**: Jira, Git, MS Project, Adobe Suite, Office 365...
- **Languages**: English (C1), French (native), Spanish (B1)