

# Jules ESPINOUX

Toulouse, France

julespinoux@gmail.com | +33 6 82 75 75 45 | LinkedIn | GitHub | Website

Final-year Master of Engineering student at ISAE-SUPAERO, majoring in Data Science. Seeking a 6-month Software Engineering/Data Science internship starting March/April 2026.

## EDUCATION

### ISAE-SUPAERO

2022 – 2026

*Master of Engineering, Data and Decision Science*

*Toulouse, France*

- **Coursework:** Machine Learning, Deep Learning, Big Data Engineering, High Performance Computing (OpenMP, MPI, CUDA), Computer Science (Data Structures and Algorithms, Object-Oriented Programming), Mathematics (Optimization, Advanced Statistics, Probability, Linear Algebra).
- **Thesis:** 3D Segmentation on Medical Imaging Data (confidential project, private repository).

### University of Limerick

Autumn 2024

*Erasmus semester, Data Science*

*Limerick, Ireland*

- **Coursework:** Machine Learning, Deep Learning, Database Systems, Advanced Data Analysis.

### Lycée Déodat de Séverac

2020 – 2022

*PTSI - PT\*, Preparatory program for French top engineering schools (ranked 2<sup>nd</sup> in Mathematics)*

*Toulouse, France*

## EXPERIENCE

### Software Engineer - Intern

August 2025 – October 2025

*Athena Studio*

*Luxembourg City, Luxembourg*

- Designed a monitoring dashboard leveraging LLM-powered text clustering to improve AI agent usage monitoring.
- Implemented integration tests with Vitest and set up execution in GitHub Actions CI/CD pipelines, increasing automated test coverage from 0% to 85%.

### Software Engineer - Intern

February 2025 – July 2025

*Salomon*

*Annecy, France*

- Developed a beta mobile application with Flutter (iOS/Android), expanding the tester base from 8 to 120 users.
- Led backend development by building Serverless REST APIs with Node.js and designing scalable data pipelines with AWS DynamoDB and S3, enhancing data availability and supporting mobile feature integration.
- Automated multi-env deployments and CI/CD pipelines, including App Store and Play Store releases.
- Partnered with UX designer, led workshops, and conducted 10+ user interviews to refine features. Participated in daily Agile stand-ups, gaining solid Scrum experience.

### Software Engineer - Intern

March 2024 – July 2024

*Centre National de Ski Nordique*

*Prémanon, France*

- Conceived from scratch a full-stack analytics platform using PostgreSQL, FastAPI, Docker, Streamlit, and GitLab CI for automated deployment. Introduced new performance insights, reducing race analysis time by 70%.

## PROJECTS & ONLINE COURSES

### TurboKMeans | C, OpenMP, High Performance Computing (HPC)

October 2025

- Parallelized a K-Means-based image compression algorithm using OpenMP.

### Building Ambient Agents [Online Course] | Python, LangChain

July 2025

- Implemented an end-to-end email management agent from scratch, integrating evaluation, human review, and memory to improve accuracy.

### Hackathon ENS | PowerShell, Makefile, Docker

June 2025

- Created a PowerShell script to streamline Windows dependency setup, cutting bugs and boosting speed by 15%.

### Sokoban Game | Python, C, Streamlit, PostgreSQL, FastAPI, Docker

March 2023

- Built a Sokoban game and solver in C, achieving 50% faster solutions using binary trees. Designed a full-stack system with PostgreSQL, FastAPI, and Streamlit to store and visualize user performance data.

## TECHNICAL SKILLS

**Languages:** Python, TypeScript, C, SQL, Git, Java.

**Data Science & AI:** PyTorch, TensorFlow, Scikit-learn, LangChain/LangGraph.

**Frameworks:** Flutter, Streamlit, FastAPI, Selenium, Jest, Vitest.

**Cloud & DevOps:** Docker, Kubernetes, AWS, Supabase, Vercel, Fastlane, GitLab CI/CD, GitHub Actions, Jira.

## ADDITIONAL ACTIVITIES

- **Chess:** Competitive FIDE player (Elo 1954), consistently ranked top 20 nationally in French Youth Championships and multiple-time regional champion.
- **Triathlon:** Regularly compete in endurance events, demonstrating discipline, goal-setting, and long-term commitment to physical and mental performance.