Jules ESPINOUX

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Final-year Master of Engineering student at ISAE-SUPAERO, majoring in Data Science. Seeking a 6-month Software Engineering 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 Medical Image Segmentation using Convolutional Neural Networks and Transformer architectures.

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 2nd 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

Victorian Author Attribution | *Machine Learning, NLP, Scikit-Learn*   **November 2025**
  − Achieved 95% accuracy in predicting authors of Victorian-era texts by training and tuning Naive Bayes and SVM classifiers on TF-IDF and BoW features.

Kaggle Hackathon − Heart Risk | *Machine Learning, Data Engineering, Scikit-Learn*   **November 2025**
  − Designed and implemented a complete data preprocessing pipeline for a large-scale health dataset. Achieved 75% accuracy in predicting heart attack risk by developing machine learning models (Random Forest, XGBoost, SVM).

TurboKMeans | *C, OpenMP, High Performance Computing (HPC)*   **October 2025**
  − Parallelized a K-Means-based image compression algorithm using OpenMP.

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, 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.
  − **Triathlon:** Regularly compete in endurance events, demonstrating discipline, goal-setting, and long-term commitment.