Paul Trassaert

Leuville-sur-Orge, France
+33 6 25 47 06 43 | paultrst@icloud.com | LinkedIn | GitHub

Engineering Student seeking an Internship in Quant Trading, Front Office Development, Research, Risk & Data Science (Available from April 2026)

Education

IMT Atlantique **Brest, France**
MSc in Engineering - Applied Mathematics & Quantitative Finance *2024 – 2027*

- **Core Curriculum:** Introduction to Machine Learning, Stochastic Modelling & Analysis, Numerical Methods.
- **Finance Track:** Market Finance, Empirical Finance, Stochastic Dynamic Models.
- **Advanced Skills:** Portfolio Management, Trading Algorithms, Advanced C++ Programming.

Lycée de l'Essouriau **Les Ulis, France**
Preparatory Class for French Engineering Schools (CPGE) *2022 – 2024*

- Intensive program in advanced mathematics, physics, and computer science.

Institution du Sacré-Cœur **La Ville-du-Bois, France**
French Baccalaureate - Specialized in Mathematics, Physics, and Computer Science *2019 – 2022*

- Focused on advanced scientific curriculum and foundations of programming.

Projects

Coastal Cliff Erosion Modelling (BD MOMA Project) | *Python, R, QGIS, Statistics* **2025 – 2026**

- Collaborated with LETG Laboratory to develop database and mathematical models for erosion prediction.
- Designed statistical and stochastic models linking geological, meteorological, and marine variables.
- Developed and deployed machine learning algorithms for coastal cliff erosion forecasting.

Modular Machine Learning Pipeline | *Python, Scikit-learn, Pandas* **2025**

- Engineered a modular classification pipeline automating data preprocessing, feature selection, and performance evaluation for binary classification. Evaluated and compared Random Forest, SVM, Gradient Boosting models...
- Validated model robustness across balanced and highly unbalanced datasets using specialized sampling techniques.

High-Performance Hyperspectral Unmixing | *Julia, Distributed Computing, Optimization* **2025**

- Developed a BSS solver using Projected Gradient Descent to decompose hyperspectral data under physical constraints (non-negativity/sum-to-one).
- Achieved a speedup by implementing Julia distributed computing (`pmap`) to parallelize pixel-wise abundance updates.

Big Data and Stochastic Processes | *GCP, BigQuery, Python, Colab* **2025**

- Processed and analyzed 50 GB of satellite data on Google Cloud Platform using BigQuery.
- Applied machine learning methods to environmental time series analysis.

Experience

Complétude **Brest, France**
Tutor - Mathematics and Physics *2024 – 2026*

- Provided individualized tutoring for high school students at the final year level.

Calamongo **Monthléry, France**
Sales and Operations Assistant *June 2025 – July 2025*

- Managed inventory reception, order tracking, and stock organization.

Skills, Languages & Activities

Technical Skills: Python, R, Julia, C++, SQL, PyTorch, LaTeX, GCP (BigQuery), VS Code, QGIS

Specializations: Stochastic Modeling, Machine Learning, Numerical Analysis, Financial Markets

Languages: French (Native), English (B2), Japanese (A2)

Activities: President of the Table Tennis Club, Member of Finance Consulting Atlantic, Chess, Strength Training