Nada Mousteau

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https://nadamousteau.github.io/portfolio/

EDUCATION

ENSAE Paris - Engineering Program, Second year 2024-Present
Palaiseau, France GPA : 3.9/4.0

- **Relevant Coursework:** Stochastic Calculus, Probability & Statistics, Econometrics, Time Series, Advanced Micro & Macroeconomics, Financial Economics, Machine Learning and Programming (Python and C++).

EXPERIENCE

HSBC - Quantitative Research Project Oct 2025-Present

- Built a Python ALM simulator to optimize retirement portfolio strategies under stochastic market scenarios.
- Applied quantitative finance techniques to enhance capital allocation efficiency.
- Delivered analytical insights on volatility, drawdowns, and risk–return trade-offs for long-term performance.

Assurances Crédit Mutuel - Actuarial Intern Jun 2025-Aug 2025
Paris, France

- Developed and automated a Life Insurance Projection Model using Object-Oriented VBA.
- Built and improved multiple modules, enhancing model accuracy, efficiency, and usability.
- Gained hands-on experience in financial modeling, risk evaluation, and quantitative methods.

Forum Trium ENSAE Association - Vice-President May 2025 - Present
Paris, France

- Coordinating the 34th edition of Forum Trium by managing corporate outreach, supervising internal teams.
- Overseeing both the in-person and virtual editions ensuring smooth execution and broad visibility.

Tremplin Association - Mathematics Tutor Sept 2024 – June 2025
Kremlin-Bicêtre, France

- Joined a program aimed at teaching mathematics to students from underprivileged backgrounds.

PROJECTS

Quantitative Pairs Trading Strategy Backtester Oct 2025

- Achieved a Sharpe Ratio of 1.41 (+168% RoC) by developing a Python backtesting engine from scratch and systematically optimizing a Z-score based statistical arbitrage strategy.

J.P. Morgan - Quantitative Research Simulation (*Forage*) Oct 2025

- Developped a prototype pricing model and building a credit risk model that uses dynamic programming to estimate Probability of Default (PD) from FICO scores.

SKILLS

Languages: French (Native), English (Fluent), Arabic (Fluent), Spanish (Conversational).

Technical Skills:
Programming Languages : Python, VBA Excel OOP, C++, R, SQL, SAS, *LaTeX.*
Data & Quantitative Modeling: Machine Learning *(scikit-learn),* Financial Modeling and Econometrics.

Certifications:
• *Machine Learning in Python with scikit-learn* – INRIA (2025)
• *Foundations of Finance* (Certification from the University of Cambridge via EDX, Sep 2024)

ACTIVITIES & INTERESTS

Activities: Treasurer – ENSAE Finance Association / Member – ENSAE Student Association.
Interests: Literature, Philosophy, Cooking, Art and Running.