Benjamin Gerino

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EDUCATION

The University of Chicago

Chicago, IL

Master of Science in Financial Mathematics

Expected December 2025

Courses: Portfolio Theory & Risk Management, Option Pricing, Python, Probability & Stochastic Processes

Ecole Nationale Supérieure de Techniques Avancées Paris (IP Paris)

Paris, France

Bachelor and Master of Science in engineering: Applied Mathematics (3.8/4)

Expected December 2025

 Courses in Mathematics: Fundamental Mathematics, Numerical Methods for Finance, Stochastic Calculus, Statistical Modelling, Optimization

• Others: Physics (Fundamental and Applied), Computer Science, Economics

SKILLS

Computing: Python, C++, Jupyter, C, Matlab, VBA, LaTex

Knowledge: Machine Learning, Statistical Modelling, Financial Markets **Trading Products:** Commodities, Futures, Equities, Fixed Income, Options

EXPERIENCE

EDF (Electricite de France)

Palaiseau, France

March 2024 - August 2024

Quantitative Researcher Intern

- Calibrating stochastic pricing model for future products in the electricity market using machine learning model
- Developing a specific machine learning framework for calibration inspired by PINNs model (physics-informed neural networks)
- Analyzing and implementing research paper works on PINNs

Trading Central

Paris, France

Quantitative Engineer Intern

September 2023 - February 2024

- Developed and evaluated coherent methods to gather input data for portfolio optimization (assets expected returns and covariance matrices)
- Built a portfolio optimization model for multi-asset portfolio inspired by robust optimization models
- Tested optimization models and conducted backesting to measure performance on different portfolio types and in different economic environments; confirmed each model efficiency

University of Toronto Visiting Researcher

Toronto, Canada April 2023 - July 2023

- Created a portfolio optimization strategy using meta labeling (developed by Marcos Lopez de Prado, *Advances in Financial Machine Learning*)
- Developed and implemented technical analyses techniques and machine learning models to build automated trading portfolio
- Conducted technical analysis and improved this primary model accuracy

PROJECTS

ENSTA Paris

Palaiseau. France

September 2021 - May 2023

Academic Projects

- Priced Bermuda option pricing methods using Monte Carlo (up to 3 exercise dates)
- Developed a chess game with an AI (min/max algorithm) bot player in C++
- Created a racing game in C++ (interface with a bot player)
- Signal processing projects in Matlab (filtering, Fourier transform, echo removing)

Qube Research and Technologies

Paris, France

Challenge DATA

June 2024 - Present

• Predict football games with machine learning classifiers

ADDITIONAL INFORMATION

Languages: French (native), Spanish (intermediate), Russian (basic)

Interests: Tennis, badminton, basketball, piano