

Daniel Sbeiti

+1 (609) 786-0780 | ds8885@princeton.edu | [personal website](#)

EDUCATION

- Princeton University** - *MFin, Master in Quantitative Finance (STEM degree)* Aug 2024 - May 2025
- Applying **quantitative methods** and models to **financial trading strategies**, including reinforcement learning, machine and deep learning, autoregressive and factor models.
 - Relevant courses: Statistical Analysis of Financial Data, Computational Finance in C++, Financial Risk Management, Stochastic Calculus and Asset Pricing, Financial Econometrics, Large Language Models
- Ecole Polytechnique** - *'Grandes Ecoles' BSc-MSc, Mathematics, Applied Mathematics, GPA: 3.9/4.0* Aug 2021 - May 2024
- Ranked 69 out of 20,000 students on France national entrance exams in Physics and Math (CPGE Ginette)
 - Relevant Courses: Stochastic Calculus in Finance, Machine and Deep Learning, Optimal Control, Monte Carlo Simulations, Abstract Algebra, Time Series Analysis, Probability and Statistical Theory, Real Analysis

WORK EXPERIENCE

- EDF Lab Pacific Asia - Quantitative Researcher Intern** Mar - Aug 2024
Energy Markets Division *Singapore, Singapore*
- Created and priced a market of contracts covering a regulation induced renewable energy demand with an optimal allocation of electricity production and storage.
 - Developed a deep learning algorithm to solve non-linear stochastic optimization problems with storage control for commodity trading strategies (PyTorch), under supervision of Pr. Nizar Touzi (NYU chair of Finance and Risk Dpt).
- Bain & Company - Associate Consultant Intern** Jun - Aug 2022
Data Science Analyst *Paris, France*
- Priced products for a Mobility Payment company under LBO by conducting quantitative analyses of US market macro-databases on user click, competition price and city activity. Identified 35% additional sales revenue potential.

QUANTITATIVE RESEARCH PROJECTS

- Interactive AI Resume Chatbot** Jan 2025
Personal project, Web *Princeton, US*
- Built an Interactive Resume Chatbot running with local Mistral-small in a Retrieval-Augmented Generation structure, trained on my project reports and extensive CV. Also coded its web interface (HTML/CSS).
- Extractive Text Summarization in Natural Language Processing (NLP)** Sep - Dec 2023
Ecole Polytechnique Computer Science Dpt. *Paris, France*
- Built a Extractive Summarization Language Model based on dialogues and discourse graphs
- American Options Pricing and Optimal Stopping** Sep - Dec 2023
Ecole Polytechnique Applied Mathematics Dpt. *Paris, France*
- Priced American option baskets implementing Longstaff-Schwarz algorithms to determine optimal exercise dates
 - Upgraded the pricing algorithm using Gaussian Process Regressions supervised learning and low discrepancy series
- Gaz Leak Detection with Image Processing in Deep Learning** Nov 2023
QuantumBlack AI Hackathon, finalist out of 10 teams *Paris, France*
- Chaired a 4-student team in developing the Hackathon's best performing methane gaz leak detection and localization model from satellite imaging, achieving 92% accuracy using CNN structures.
- Stochastic Modelling in Population Dynamics** May 2022 - May 2023
Ecole Polytechnique Applied Mathematics Dpt. *Paris, France*
- Designed a stochastic model solving stationary solutions to Sheguesada, Kawazaki and Teramoto's non-linear differential system (SKT model) to describe two-species population dynamics with birth-death events and local segregation

LEADERSHIP EXPERIENCE

- Swimming Team President and Student Representative** Apr 2022 - Apr 2024
- Represented Polytechnique's swimming team before the university's directing board
 - Organized numerous social and academic events for 30 teammates and 40 arriving students over 2 years
- Versailles Armored Intervention Unit Trainee** Sep 2021 - Mar 2022
- Commanded a four-person vehicle in protection missions for Bank of France money convoys and President E. Macron

SKILLS & INTERESTS

Languages: English – French - Arabic (fluent), Spanish - German (intermediate), Mandarin Chinese (beginner)
Technologies: Python (Pandas, Scikit-learn, PyTorch/TF, Networkx, HuggingFace/LangChain), HTML/CSS, Java, C++
Passions: Skydiving, Swimming, Speech contests, LLMs