Massyle DENDENE

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Paris, Ile-de-France, France

Resume

Education

- **ENSAE (IP Paris)** — **Palaiseau, France**
  PhD Candidate — *2025-2028 (expected)*
  - Topic : Optimal stochastic control of intensity of Hawkes process with Bayesian learning.
- **Université Paris-Cité** — **Paris, France**
  MSc in Quantitative Finance (M2MO) — *2024 - 2025*
  - Stochastic control, Derivatives modeling, Markov Chains, Stochastic calculus, Backward Stochastic Differential Equations.
- **ENSAE (IP Paris)** — **Palaiseau, France**
  Double degree - Major: Actuarial Sciences — *2023 - 2025*
  - Mathematical Finance, Statistics, Financial Markets, Econometrics, Linear Time Series, Economics, Extrem Value Theory (GPA : 4/4)
- **IMT Atlantique (ex Telecom Bretagne)** — **Brest, France**
  MSc of Engineering — *2021 - 2025*
  - Major : Applied Mathematics (GPA : 3.71/4)
  - Machine learning, Numerical Calculation Method, Signal processing

Experiences

- **Exiom Partners** — **Paris, France**
  Quantitative researcher intern — *May 2025 - Oct. 2025*
  - Option pricing in illiquid market using fractional jump diffusion
- **Aon Global Risk Consulting** — **Luxembourg, Luxembourg**
  Non-Life Actuary intern — *June 2024 - Sept. 2024*
  - Calculating aggregate loss distributions within a frequency-severity model, using the **Fourier transform** to simplify the manipulation and numerical calculation of the convolution product
  - Reserving for non-life reinsurance captives (chain ladder, Bornhuetter-Ferguson, bootstrap)
- **SAF Laboratory - ISFA** — **Lyon, France**
  Research intern (mentored by Stéphane LOISEL) — *Apr. 2023 - Aug. 2023*
  - JRI Axa Project (Joint Research Initiative) : Longevity model selection and change detection in the covid-19 era. Topics: Change-Point Detection, Model Selection, Longevity Risk (used tools: martingales, stopping time, stochastic calculus...)
  - Project related to hail damage insurance: Creating a map of France using **Python** to model hail trajectories and incorporate data on hailstone size
- **School Projects** — **Paris, France**
  In team — *Sept. 2021 - sept. 2024*
  - Project in Finance with CMAP of Polytechnique: Deep portfolio allocation and path signatures (mentored by Eduardo ABI JABER and Louis-Amand GERARD)
  - QuantLib project: Implemented optimization techniques in **C++** to enhance Monte Carlo engines, specifically addressing performance issues in the Generalized Black Scholes Process class (mentored by Luigi BALLABIO)

Skills

- **Soft skills** : Result driven, Detail oriented, Proactive problem solver, Adapting to changing circumstances
- **Technical skills** : Python, R, Git
- **Languages** : English : C1 level (IELTS 7/9), German : B2 level, Italian : A2 level, French : native

Hobbies

- Table tennis
  - Playing for 8 years, participating in competitions for 5 years. Responsible for the table tennis club at school: organizing weekly training sessions.
- Piano
  - Practicing at an advanced level for 16 years (conservatory training for 10 years). Participated in various concerts, including one at the Philharmonie de Paris.
- Blood donation
  - Since turning 18, I've been a regular blood donor. I'm now at 46 donations.