Zakaria El Yassini

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Profile

Motivated Graduate student in Mathematical and Computational Finance with expertise in quantitative methods and financial analysis and a passion for research. Proficient in Python, R, and Power BI, leveraging programming to develop innovative solutions for investment strategies and risk assessment.

Skills

- *Programming Languages*
  Python | Expert
  R | Advanced
  C++ | Beginner
- *Excel Proficiency*
- *Power BI*
- *Statistical and Quantitative Research and Analysis*
- *Financial and Mathematical Modeling*
- *Critical and innovative thinking*
- *Team collaboration and Leadership*

Languages

- *English | Native*
- *French | Native*
- *Arabic | Native*

Experience

Financial Performance Analyst Intern — *May 2024 – Dec 2024*

IPEX Inc – Verdun, QC

- *Developed advanced Power BI tools to monitor and analyze the performance of a portfolio of 5 companies, enhancing decision-making capabilities*
- *Applied mathematical models, including time series analysis with a 95% confidence interval, to predict performance trends, enhancing budgeting and forecasting accuracy*
- *Created an innovative Python-based PVM analysis tool that automated performance metrics selection, saving over 20 hours monthly and enabling on-demand access to key data without manual intervention*

Event Greeting Agent — *May 2023 – Oct 2023*

Piknic Electronik — Montreal, QC

- *Coordinated entry for 10,000 festival attendees, managing inflow and outflow seamlessly while thriving under pressure and optimizing event logistics*

Analyst intern — *Jan 2023 – May 2023*

Bombardier Inc – Dorval, QC

- *Developed advanced tools and reports for governance and budget management, enhancing data gathering and analysis processes, resulting in 100%-time savings through automation*
- *Demonstrated proficiency in Power BI, Power Automate, Power Apps, and Excel to deliver insightful financial analysis, leading to a 75% improvement in identifying key risks and opportunities and enhancing reporting accuracy*
- *Managed multiple high-priority projects with varying deadlines, improving project delivery by 50% by the end of my internship*

First Year Representative — *Sep 2020 – Sep 2021*

MASSA – Montreal, QC

- *Coordinated with 4-people team to organize and host campus events, enhancing student engagement by bringing in industry speakers to discuss topics such as Brownian motion and stochastic calculus in finance.*

Education

MA MSc Mathematical Finance and statistics *Jan 2025 – May 2027*

Concordia University – Montreal, QC

- Official start date of my graduate studies set to be January 2025

Bachelor of Science BSc *Sep 2020–Dec 2024*

Concordia University – Montreal, QC

Mathematical and Computational Finance Discipline.

- *Dean's List: 2020-2021 academic year*
- *Relevant Coursework: Time series analysis, Derivative pricing, Black-Scholes, stochastic calculus, advanced statistics & probability, Asset Management, Hedging, Derivative Pricing, Swaps and caps, Monte-Carlo Simulations, Continuous time finance.*
- CGPA: 3.54/4.30

Moroccan Baccalaureate in Science *Sep 2020*

Madariss Maria High School – Temara, Morocco

- *Distinction: Very Good*

Honors and awards

- *Tom Labelle Bursary in Mathematics*
- *Bronze Honour in IYMC (International Youth Math Challenge)*
- *Bronze Honour in IAAC (International Astronomy and Astrophysics Competition)*

Certifications and projects

Machine Learning for Trading *Oct 2024*

New York Institute of Finance

- *Completed the "Machine Learning for Trading" course at the New York Institute of Finance, specializing in the application of neural networks to enhance trading strategies and optimize financial decision-making.*

Monte- Carlo methods in Finance *Oct 2024*

Personal Project - GitHub

- *Built and refined Monte Carlo models to price European and Asian options, incorporating variance reduction techniques.*
- *Implemented variance reduction strategies, resulting in significant efficiency improvements, such as a 47968% increase using control variates.*
- *Technologies: Python (NumPy, SciPy, Matplotlib), Pandas*

Volatility Surface Calibration *Sep 2024*

Personal Project - GitHub

- *Developed and implemented algorithms to calibrate implied volatilities from market data, utilizing advanced programming techniques and mathematical models.*
- *Successfully improved the accuracy of volatility surfaces, aiding in precise pricing of options across different strike prices and maturities.*

Investment Analysis and Assets Management with Python *Aug 2024*

- *Conducted comprehensive investment analysis and asset management using Python, focusing on data-driven decision-making and portfolio optimization techniques*

Hobbies

- *Jewellery Design and making*
- *Coding*
- *Reading novels*
- *Hiking*