

# 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.

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## EDUCATION

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### **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: 3.56/4.30

### **Moroccan Baccalaureate in Science**

Sep 2020

Madariss Maria High School – Temara, Morocco

- *Distinction: Very Good*

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## HONORS AND AWARDS

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

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## CERTIFICATIONS AND PROJECTS

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### **Various Python Projects**

Aug 2024-Present

Personal Project – GitHub

- *Developed and refined Monte Carlo models to price European vanilla and basket options as well as Asian options, incorporating variance reduction techniques (e.g., control variates), resulting in a 307 M % efficiency improvement.*
- *Designed a momentum-based portfolio optimization strategy using LSTM neural networks for asset prediction, integrating dynamic weighting to maximize the Sharpe ratio.*
- *Implemented PDE methods for option pricing using the FTCS scheme to model option derivatives.*
- *Built algorithms to calibrate volatility surfaces from market data, enhancing option pricing accuracy across different strike prices and maturities.*
- *Applied portfolio optimization techniques, improving asset allocation and risk-return profiles.*
- *Technologies: Python (TensorFlow/Keras, NumPy, SciPy, Matplotlib), Pandas*

### **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.*

### **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*

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## HOBBIES

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