

Donal O'Brien

BSc (Hons) Financial Mathematics and Actuarial Science

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Summary

Financial Mathematics and Actuarial Science graduate with a great problem solving skillset looking to further develop a career in finance. This degree enables critical and creative thinking when faced with a problem and provides the ability to be versatile and adaptable in the workplace. Enthusiastic and diligent worker with a fascination for the financial markets, sport, and data exploration, coupled with experience in execution algorithm creation eager to work with like-minded individuals.

Education

BSc (Hons) Financial Maths and Actuarial Science

University College Cork

2013 - 2017

This degree focused on teaching a broad range of quantitative, numerical, and computational skills to be used in many fields and to successfully approach challenging problem in life. Lecturers encouraged collaborative assignments to develop not only individual technical skills but also interpersonal ability which is transferrable to the workplace. A final year project enabled the research and replication of the basic properties of financial markets using agent-based modelling in the NetLogo program.

Modules:

- Time Series
- Probability
- Statistics
- Regression
- Computational Finance
- R programming
- Derivatives, Securities, and Option Pricing

Achievements:

- Graduated with a Second Class Honours Grade 1 (2:1).

Leaving Certificate

St. Brogan's College

2013

570 points (97th percentile).

Work Experience

Quantitative Analyst

BEx LLC/ Northern Trust

Chicago, IL, United States.

Nov 2017 - Sep 2018

Quantitative analyst for BEx LLC (acquired by Northern Trust), a comprehensive eCommerce foreign exchange platform specializing in customizable algorithmic execution. Primary role was in the creation process and implementation of execution algorithms in the FX markets for Northern Trust. This included modelling to create Bayesian and regime switching capabilities through Hidden Markov Models and building out a complete profile of algorithms tailored to each client's needs.

Skills:

- Statistical and Financial Analysis.
- Execution algorithm creation.
- Resolving daily operational issues.
- Computational skills.

Achievements:

- Involved in the completion and deployment of new execution algorithms over the year.
- Used data analysis to successfully pinpoint the best time to trade a specific asset.
- Used data analysis to analyse algorithm execution vs trader execution around the FIX.
- BEx won 'Best Execution Algorithm Award' at World's Best FX Providers Awards 2018.
- Working knowledge of Linux, MySQL, and Java in a data analytics capacity through various projects.

Assistant Trader and Financial Reporting Intern

Global Shares

Co. Cork, Ireland.

May 2016 – Sep 2016

Intern for Global Shares, a share plan management solutions firm. Global Shares is a leading global provider of equity compensation management solutions to companies in over 100 countries worldwide. The internship began in the financial reporting department analysing, customizing, and modifying reports. Development of a binomial option pricing model tailored to Global Shares' needs. Payment processing in the Trading Department for the exercise and sale of participants shares and liaising with the specialist bank and asset manager.

Achievements:

- Created Binomial Option Pricing model tailored to Global Shares in Excel.
- Took over the unsupervised role of one of the Assistant Traders for one week.
- Trained new hires to the system and the daily operations of the firm.
- Optimized reconciliation process to be more efficient and save valuable time.
- Successfully tested new software on UAT environment.

Additional Information

Currently enrolled in an online Python course for improved technical skills and computational knowledge.

Sports orientated fanatic, playing Gaelic Football & Hurling, Soccer, Swimming and fitness. Summer camp counsellor teaching kids the basics of Gaelic Football and Hurling. Regular involvement in breakfast mornings, sports fun days and other events held in the village to give back to the community. Enjoy reading books like “Flash Boys” and “The Undoing Project” by Michael Lewis, “A man for all markets” by Edward Thorp, and “The Physics of Wall Street” by James Owen Weatherall.

References are available upon request.