

Nathaniel Yee

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EDUCATION

Northeastern University

B.S. Data Science and Business Administration: Finance, Minor: Mathematics

● **GPA:** 3.6/4.0 (DMSB Deans List)

● **Relevant Coursework:** Finance and Investments | Financial Management | Financial Accounting | Data Science 3500 | Business Statistics | Discrete Structures and Mathematics | Managerial Accounting | Database Design | Computational Methods In Finance |

● **Clubs & Activities:** Finance for the Community | Data Club | NU Systematic Alpha | Downhillers Ski Club | Phi Gamma Delta |

Boston, MA

Expected May 2026

RELEVANT EXPERIENCE

WELLINGTON MANAGEMENT

Incoming Quantitative Trading, Research, and Analytics Intern

Boston, MA

JOHN HANCOCK

Actuarial Intern

Boston, MA

January 2024 – June 2024

- Extracted, refined, and analyzed data to generate Daily Production Reports (DPR), utilizing Excel, PowerBI, and Microsoft SQL Server, ensuring accuracy and timeliness in tracking key performance indicators. Providing insights into financial performance, business segment financial risk, and aiding decision-making processes for the U.S. CFO and CEO, on transactions of ~\$100 million daily.
- Modeled Death Benefit Commutation Values for payout annuities utilizing Excel, integrating effective annual interest rates, fixed income payments, and lapse schedules.
- Implemented methods of streamlined processes for data cleaning, processing, and analysis using VBA, resulting in automation of 300 manual model inputs on Quarterly Contractual Service Margin (CSM) Reconciliation US Brokerage reports.

BAY SPECIALIZED TAX SERVICES

Business Development and Marketing Intern

Remote

June 2023 - August 2023

- Founded and spearheaded a dynamic social media marketing team, driving strategic advertising initiatives across social media platforms.
- Developed and launched innovative marketing campaigns across Instagram and TikTok accumulating +10,000 views and increasing impressions by 50%.
- Executed community outreach initiatives aimed at educating and empowering 50+ local business owners about the valuable benefits of the Employee Retention Credit (ERC).
- Employed research and analytical skills to assess the eligibility of local businesses for the ERC, utilizing advanced tools like HLA (High-Level Analysis) for comprehensive evaluation of potential tax savings.

ACTIVITIES & INVOLVEMENTS

Northeastern Systematic Alpha

President

Boston, MA

September 2023 - Present

- Develop and deliver lectures on quantitative finance topics, including asset valuation, factor modeling, statistical analysis, probability theory, and regression techniques, tailored to equip students with practical and theoretical insights.
- Conduct thorough back testing and validation of factor models to assess performance and refine model parameters, ensuring accuracy and reliability in financial forecasting.
- Apply quantitative analysis techniques to develop factor models using Python and SQL.

TECHNICAL PROJECTS

[BLACK-SCHOLES SCENARIO ANALYSIS VISUALIZER](#)

- Developed an Options Price Calculator using streamlit, numpy, and seaborn to calculate and visualize Call and Put option prices based on the Black-Scholes model.
- Implemented scenario analysis with dynamic input fields for current stock price, strike price, time to maturity, volatility, and risk-free rate to simulate various pricing scenarios.
- Visualized option pricing with heatmaps that display the effect of changing spot price and volatility ranges on Call and Put prices.

[QUANTITATIVE ANALYSIS ON REDDIT SENTIMENT'S IMPACT ON MARKET VOLATILITY AND RETURNS](#)

- Conducted sentiment analysis on Reddit's r/wallstreetbets data and Yahoo Finance stock price data for a year, revealing no statistically significant correlation between sentiment scores and overall portfolio returns (p-values > 0.16).
- Identified a significant increase in market volatility (p-value < 0.05) when negative sentiment was expressed on r/wallstreetbets, suggesting a possible influence of sentiment on volatility trends.
- Analyzed Reddit sentiment's impact on Sharpe Ratio, a risk-adjusted return metric, finding no significant correlation with sentiment scores (p-values > 0.16), implying sentiment's limited effect on risk-adjusted returns.

CERTIFICATIONS AND SKILLS

CERTIFICATIONS: Bloomberg Market Concepts (BMC) | Bloomberg ESG | Financial Modeling/Forecasting Foundations |

SKILLS: Pandas | Python | Seaborn | Scipy | NLTK | Figma | Microsoft Suite | HTML | CSS | Git/Github | SQL | VBA | Tableau |

INTERESTS: Web3 Technology | Chess | Photography | Keyboards | Weightlifting and Running | Piano, Clarinet, and Ukulele | Reading |