John P. Binek IV

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SUMMARY

Master of Science in Quantitative and Computational Finance candidate with background in Industrial Engineering; a confident and curious leader who previously served in the United States Coast Guard seeking an internship in Quantitative Finance.

EDUCATION

GEORGIA INSTITUTE OF TECHNOLOGY, Scheller College of Business **Atlanta, GA**
Master of Science in Quantitative and Computational Finance *December, 2025*

- Key Coursework: Derivatives, Fixed Income, Numerical Methods for Finance, Simulation, Regression Analysis, Stochastic Processes in Finance, Artificial Intelligence for Finance, Finance and Investments

GEORGIA INSTITUTE OF TECHNOLOGY, H. Milton Stewart School of Industrial & Systems Engineering **Atlanta, GA**
Bachelor of Science in Industrial Engineering *December, 2023*
Concentration: Analytics & Data Science, Financial & Economic Systems

- Key Coursework: Advanced Optimization, Advanced Stochastic Systems, Finance and Investments, Machine Learning

WORK EXPERIENCE

UNITED STATES COAST GUARD
National Security Agency, Central Security Service (NSA/CSS) **San Antonio, TX**
Intelligence Specialist *December, 2016 – August, 2019*

- Deployed with USCG Cutters to support the Tactical and Operational commander on counter narcotics and National Security Intelligence using various computer programs and equipment.
- Assisted Customs and Border Patrol units in maintaining border security by surveying over 1000 miles of the United States-Mexico border and assessing/managing stressful and high-risk events instantaneously.

Coast Guard Cutter Polar Star **Seattle, WA**
Seaman *August, 2015 – December, 2016*

- Led and trained crewmembers in essential ship functions, including damage control, shipboard mechanics and the operation and maintenance of mission-critical equipment during Operation Deep Freeze 2016.

PROJECTS

QUANTITATIVE TRADING (PROJECT : PYTHON) *2021-Present*

- Analyze market maker positions across option chains to assess their hedging requirements and trading flows, according to Gamma, Vanna and Charm. Simulate scenarios to evaluate strike selection strategies that align with potential market movements, aiming to optimize upside in futures trading based on volatility and asset price dynamics.
- Automate the trading process via broker API and AWS servers, enabling continuous runtime and real-time portfolio surveillance across equity and option positions, with intraday data stored in an local database.
- Leverage natural language processing (NLP) to analyze earnings calls, company filings, and sentiment data, feeding these insights into a model that predicts related volatility. Utilize this information to determine long / short volatility positions in options, delta hedging to isolate exposure solely to volatility changes, independent of the underlying asset movements.

OPTION PRICING SIMULATION (PROJECT : PYTHON) *Summer 2024*

- Developed a Graphical User Interface for pricing various options (European, American, Barrier, Binary and Asian) on any asset, utilizing Heston Model and Jump Diffusion volatility estimates via Monte Carlo Simulations; visualized results with matplotlib for enhanced interpretation.

STOCK OPTION OPTIMIZATION (PROJECT : PYTHON, GAMS) *Fall 2023*

- Designed a stochastic optimization program to determine the ideal mix of option contracts for specific Greek value targets, minimizing transaction frequency while adapting to market conditions like volatility and liquidity.
- Integrated a daily post-optimality process to ensure contract selections align with expiration constraints.

SKILLS

Programming: Python, Excel, R, SAS, SQL, GAMS, AWS, Minitab, C++, Java, React, Arena, Simio
Certifications: Series 65, Top Secret/SCI Clearance + Single Scope Background Investigation (SSBI). (Validated 2018)

AWARDS & ACTIVITIES

Awards: U.S. Coast Guard Letter of Commendation (2019/2016), U.S. Coast Guard Meritorious Team Commendation (2019)
Activities/Volunteer: Dedicated over 150 hours of community service in support of Hurricane Harvey and Hurricane Irma.