JOHN WASHBURNE

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EDUCATION

Georgia Institute of Technology **Atlanta, GA**
BS Computer Science | GPA: 4.0 | 120 Credit Hours Completed *May 2023 Graduation Date*
- Concentrations in Intelligence and Modeling/Simulation

EXPERIENCE

Chicago Trading Company **Chicago, IL**
Software Engineering Intern *June 2022-August 2022*
- Created a performance-optimized TCP client library for placing internal orders using Python and Protobufs with both synchronous and asynchronous versions.
- Extensively tested the reliability of TCP client library using unit tests and mocking, as well as establishing performance benchmarks that met and exceeded problem specifications
- Completed substantial intern education on option pricing, spreads, Greek risk measures/hedging, and mock trading

White Cap **Atlanta, GA**
Strategic Finance Intern *May 2021 - August 2021*
- Performed correlation analysis to assist with the identification of high/low performing retail branches
- Utilized branch performance data to pick out attributes of a potential branch location that would likely lead to success

National Institute of Standards and Technology (NIST) / Clemson University **Gaithersburg, MD (Remote)**
Software Engineering Intern | Atomic Spectroscopy Group *May 2020 - August 2020*
- Developed an automated calibration procedure for the Electron Beam Ion Trap instrument
- Extensively used NumPy and SciPy as well as statistical concepts of error, uncertainty, and chi-square goodness of fit to achieve a high level of precision and accuracy in the calibration
- Produced research-quality calibrations for use in scientific publications.

SKILLS

Programming Languages (In Order of Proficiency) Python, Java, C, C++, JavaScript, HTML, CSS
Software Frameworks MongoDB, Flask, AWS, Google Cloud Products
Data Science + ML NumPy, SciPy, Pandas, MatPlotLib, Web Scraping, SciKit-Learn
Mathematics Discrete Mathematics, Probability and Statistics, Multi-Variable Calculus, Linear Algebra, Differential Equations

LEADERSHIP AND INVOLVEMENT

GTSF Investments Committee - Quant Sector Senior Analyst **September 2020 - Present**
- Assist in management of the $2.1 million endowment fund for the Georgia Tech Student Foundation.
- Currently working on a Python Flask application that serves as an intuitive dashboard to assist the Portfolio Directors with allocation based on the Black-Litterman model
- Selected as analyst after completing competitive semester-long mentorship program

HackGT - Tech Team Developer **December 2020 - August 2021**
- Developed software tools in the MERN stack for the southeast's premiere collegiate hackathon organization, a 501(c)(3) nonprofit that plans and executes events for upwards of 1000 participants annually.

CS 1332 - Data Structures and Algorithms Teacher's Assistant **January 2021 - May 2021**
- Taught weekly recitation sections on Data Structures and Algorithms concepts such as binary search trees and graph algorithms
- Graded student assignments and held office hours to answer student questions in a 1-on-1 environment

CUhackit - Tech Director **December 2019 - May 2020**
- Lead a sub-team of developers to organize the annual hackathon hosted by Clemson in January.
- Responsibile for development of http://cuhack.it and participant check-in systems to manage/display data of 250+ participants

PROJECTS

Lead Dog | Intelligent Instagram Analysis **Winner: Best Use of MongoDB @ Hacklytics 2020**
- Accessed Intagram's private API to scrape mass amounts of user data
- Created a support vector machine classifier to determine if a particular account is likely to follow the user back
- Generated web crawlers to manage the automatic following/unfollowing of users that are deemed most likely to follow back

Kuratoro | Legal Document Translation **Runner-Up: Equity @ HackSC 2020**
- Designed a web app in Flask for converting PDF immigration forms to accessible web forms in any language supported by the Google translate API
- Utilized Amazon Textract for pulling text and coordinates from legal documents