ALTON BANUSHI

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EDUCATION

Northeastern University   Boston, MA
Candidate for B.Sc. in Computer Science and Mathematics   *Sep 2021 – May 2025*
Coursework: Object Oriented Design, Algorithms & Data, Foundations of Data Science, Logic & Computation, Database Design, Linear Algebra, Probability & Statistics, Calculus 3, Statistic & Stochastic Processes, Group Theory
GPA: 3.99/4.0

TECHNICAL SKILLS

Languages: Java, TypeScript / JavaScript, Python, C++, C#, Swift, MATLAB, R
Technologies: React, Next.js, MySQL, Node.js, Express, tRPC, Prisma, Tailwind, Docker, SwiftUI, numpy, pandas

WORK EXPERIENCE

UBS   Chicago, IL
Quantitative Developer Co-op   *December 2022 – August 2023*
- Collaborated with portfolio managers to engineer a custom fixed-income web tool, enabling visualization of 300+ months of data using React and TypeScript
- Designed and implemented a portfolio optimization tool utilizing mixed integer programming, resulting in a positive excess return on average
- Developed and maintained a back-end system to collect and process large-scale fixed-income market data using Python and SQL, reducing manual portfolio analysis by 200%
- Researched 15 different benchmarks to analyze the performance of bond signaling functions over a period of 339 months

Khoury College of Computer Sciences   Boston, MA
Teaching Assistant   *August 2022 – May 2024*
- Instruct 40+ students in a weekly lab, explore lecture topics on algorithms and data structures more intensively, address student questions one-on-one
- Provide personalized feedback to students on over 30 assignments weekly, analyze and evaluate more than 15,000 lines of code to identify areas for improvement
- Conduct virtual and in-person office hours, guide 8+ students an hour on homework, debug 10,000+ lines of code

EXTRACURRICULAR

SandboxNU   Boston, MA
Software Developer   *Aug 2022 – Present*
- Spearhead the developer onboarding program by collaborating with project leads to implement project-specific 'New Joiner Wikis' and leading workshops, reducing new developer ramp-up time by 40%
- Coordinate with team members to design and develop a Python back end, React front end, and SQL database for a web application, resulting in a seamless integration of front-end and back-end systems
- Maintain and improve existing code-base, contribute 10+ hours weekly to enhance the application including critical bug fixes, resulting in improved application performance

PROJECTS

Student Government Member Tracker
- Digitized the member attendance, voting, and messaging of Northeastern's Student Government with a custom web application, simplifying procedures for over 150 senators
- Automated data collection and processing using a React front end and a Python and MySQL back end, shortening common procedure times by over 500%

Image Processing Application
- Designed an image processing application in Java, incorporated 20+ unique image operations
- Employed object-oriented principles to enable extensibility and code cleanliness, facilitating the addition of new operations without modifying code interfaces