Nathan Kochera

📞 847-910-5953   ✉ nathan.kochera@gmail.com   🔗 nathankochera.com   **in** nathankochera

Professional Experience

LineVision, Full Stack Software Engineering Intern   05/2024 - 07/2024
- Implemented caching utilizing python and AWS S3 buckets resulting in 10x speedup for data analysis tool
- Streamlined data science operations by unifying processes from multiple codebases into a single platform, resolving conflicting logic in key calculations

Belvedere Trading, Software Engineering Intern   06/2023 - 08/2023
- Utilized Flink and Pulsar to implement a real-time data processing system calculating important financial metrics and persisted data to BigQuery
- Created an interactive, real-time data visualization tool using Plotly Dash after interviewing employees about deficiencies in the old tool
- Selected to lead team of intern and full-time employees in company-wide hackathon where I spearheaded development of a universal Plotly Dash development workflow

Sun Group at Colorado Boulder, Research Assistant   09/2022 - 06/2023
- Developed python software to control several lab instruments to help facilitate experiments for multiple PhD students
- Recreated experimental results from papers related to qubit control via NV centers

University of Colorado Boulder, Student Software Developer   06/2022 - 09/2022
- Worked on frontend and backend of student portal system to help implement new features and refactor old code. Mastered Spring Boot, Angular, and Typescript
- Participated in agile environment picking up tickets every two weeks and deploying results to live student portal

Waves Market, Chief Technology Officer   12/2021 - 09/2022
- Researched best frameworks and tools to use and planned out the entire system while keeping business goals in mind
- Programmed full-stack with ReactJS frontend and firebase backend. Connected platform to the Flow blockchain using Cadence smart contracts

Projects

NCAA Team Clustering: Used PCA and k-means clustering to reveal performance patterns and style of play

Compete: MVP intramural sports app using Flutter/Dart and Firestore to streamline team management and scheduling

Backtesting Dashboard: Backtesting dashboard for support/resistance trading strategy using Python and Plotly

March Madness Prediction: Outperformed manual prediction using matrix factorization, numerical computation

SellBuddy - Freelancing: Delivered iOS app and python scripts to automate warehouse inventory processing

STATracker: Built iOS application to track and analyze basketball statistics, achieved 1.3k downloads

Education

BS   University of Colorado Boulder, Computer Science (GPA: 4.0/4.0)   08/2021 - 05/2025
- **Minors:** Quantum Engineering, Engineering Entrepreneurship
- **Courses:** Intro to AI, Machine Learning, Adv. Data Science, Algorithms, Database Systems, Quantum Hardware, Quantum Computing, Financial Econometrics
- **Clubs:** CU Quants (Portfolio Dashboard Team Lead), Quantum Tech Club (Head of Research and Development)
- **Honors:** Engineering Honors Program, Quantum Scholar

Skills

Python, C++, Java, Swift, Dart, Flutter, MySQL, Firebase, AngularJS, Node.js, React, Javascript, PHP, CSS, HTML5