Jake Lyell

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Computer Science and Data Science student with a few years of Junior experience and a number of completed personal projects. Pursuing an Honours in Computer Science and Software Engineering in 2022.

Education

University of Western Australia
Perth

Bachelor of Science, Double Major in Computer Science and Data Science *Feb 2019 – Jun 2022*

Current Grades: GPA: 5.636 | WAM: 71

Work Experience

St Vincent de Paul WA
Perth

Web Developer *Nov 2021 – Present*
- Developing a new intranet system for Vinnies WA. To be used across 52 stores, warehouse depos, and head office staff. This private site hosts all internal documents, templates and forms for Vinnies WA, and is to be used by hundreds of staff and volunteers.
- Working to meet client deadlines.
- Creating a consistent look and feel across the website by enforcing uniform formatting and layout.
- Managed data and user migration from previous systems.

QFin UWA
UWA, Perth

Executive Director of Trading *Dec 2021 – Present*
- Responsible for creating and running Computer Science based projects for 2022's Quantitative Finance Trading Team. These projects are semester-long programming tasks with the goal of developing and optimizing trading algorithms.
- In charge of organizing and running trading-based events and workshops. Including a Hackathon for other Computer Science students to participate in an Algorithmic Trading Competition.
- Developed the QFin website and a custom back-testing framework for testing quantitative algorithms on historical price data.

Coders for Causes UWA
UWA, Perth

Volunteer Web Developer *Nov 2021 – Feb 2022*
- Created a Responsive Vue.js Web Application for WAIS to help visualize the performance of pole vaulters in training.
- Worked closely with our client to ensure that all of their requirements were met.
- Participated effectively in the team-based environment. Worked with my team members to complete GitHub issues.

Projects

Visualizing Crime Data for WA Police Force
Python, Pandas, PyQt5, GIS
- Developed an interactive Python application to visualize crime data trends on an interactive heat map of Western Australia for the Data Science and Analytics Division of the WA Police Force.
- Primarily developed the Data Cleaning and Processing aspect of the application.
- Performed a team leadership and developer role, ensuring that deliverables were completed on time and resources were managed effectively.
- Utilized a Agile Scrum Methodology to manage the timeline of the project.

QFin UWA Trading Team Project
Python, Pandas, NumPy
- Designed and supervised a computer science project for the QFin Trading Team to complete. Their task was to create an optimized trading algorithm which utilizes Mean Reversion to turn a profit on historical price data.
- Developed a Custom Back-testing Framework, Stock Data API Interface and Documented Skeleton Code for the Trading Team members to utilize throughout the project.

Momentum Trading Algorithm
Python, TA-Lib, Pandas
- Collaborated in a team to create a set of algorithms to trade cryptocurrencies, based around the Quantitative Trading strategy of "Momentum Trading".
- Performed significant testing and parameter optimization to determine the best combination of algorithm and parameters to produce an algorithm that performs consistently well.

QFin UWA Website
React.js, JavaScript, HTML, CSS
qfinuwa.com
- Developed a website for QFin UWA, utilizing the React.js library.
- The site showcases major achievements of our club, featuring past and future projects, events and sponsors.

Skills

Programming Languages: Python, JavaScript, HTML, CSS, Java, TypeScript
Frameworks and Libraries: Pandas, NumPy, React.js, Vue.js, Node.js, TA-Lib, AWS Lambda
Software: Git/GitHub, Linux, Visual Studio Code
Relevant Coursework: Agile Development, Project Management, Cybersecurity, Machine/Statistical Learning