Jake Lyell

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Computer Science and Data Science student with fundamental knowledge of software design and development. Striving to utilize my knowledge and desire to learn in order to thrive as a Software Engineer. 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.

QFin UWA — *UWA, Perth*
Executive Director of Trading for UWA's Quantitative Finance Club — *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.
- Developing 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 – Present*
- Creating a Responsive Vue.js Web Application for WAIS to help visualize the performance of pole vaulters in training.
- Working closely with our client to ensure a satisfactory product is delivered.
- Participating effectively in the team-based environment. Working closely 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, resources were managed effectively, and the client was met with frequently.
- Utilized a Agile Scrum Methodology to manage the timeline of the project.

Momentum Trading Algorithm — *Python, TA-Lib, Pandas*
- Created a set of Python 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 a consistently well performing algorithm.

QFin Organization Website — *React.js, HTML, CSS, JavaScript*
- Developing a React.js Web Application for the QFin UWA Club.
- The site showcases major achievements of our club, featuring past and future projects, events and sponsors. — *qfinuwa.com*

Skills

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