Thomas Bowes

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EDUCATION & QUALIFICATIONS

The University of Melbourne - Master of Computer Science **Feb 2021 to Nov 2022**

The University of Melbourne - Bachelor of Science **Feb 2018 to Nov 2020**

Computing and Software Systems / Data Science Major

Amazon Web Services - Certified Cloud Practitioner **2021**

Scrum.org - Professional Scrum Master I (PSM I) Certification **2020**

The University of Melbourne - Access Connections Mentoring Program **2020**

Taylors Lakes Secondary College - Victorian Certificate of Education **2017**

EMPLOYMENT & VOLUNTEER EXPERIENCE

Part Time React Software Engineer | Monger Tech **Dec 2020 to Present**

An Australian IoT start-up company focusing on GPS fleet management and employee management software

- Independently developed a generalised Bluetooth device setup process in our React Native app that streamlines installation of tire pressure sensors, humidity sensors and vehicle trackers; with the ability to meet the needs of future products and services. This has reduced the workload of business representatives from having to manually setup devices for clients, saving up to 15 minutes of time per device
- Optimised a critical backend algorithm in JavaScript for fetching and processing IoT sensor data from $O(n^2)$ to $O(n)$ time. This substantially decreased server processing, allowing customers to send larger query ranges (eg. from days to weeks) and receive results significantly faster (in some cases wait times have reduced from minutes to seconds)
- Worked with a backend engineer to design an automated subscription management system (utilising a third-party payment provider) that keeps track of all payments for our subscriptions and addons. This has replaced the existing labour intensive and error-prone process, improving the integrity of the companies billing system. For example, all non-subscription paying users were identified and had their services suspended
- Built and designed two dashboards in React (web) and React native (mobile) with a UI designer that display sensor data in meaningful ways

Volunteer | I Will Camp For Cancer **Feb 2018 to Present**

I Will Camp For Cancer is a weekend camp for women, run by the Cancer Council, raising funds for cancer research

- Ran camp activities such as timed races / relays and an amazing race, for over 80 participants, encouraging them to step outside their comfort zones
- Assisted with food preparation, ensuring all participants had the energy needed to enjoy their activities
- Tailored presentation style to each group, ensuring campers of all ages felt comfortable and understood the activities

Team Member | Woolworths **Nov 2018 to Present**

PROJECTS & COMPETITIONS

2021 - Personal Project - CS Visual: A Sorting Algorithm Visualisation App

Project Repository: www.github.com/thomasbowes/CS-Visual-Algorithm-Visualisation-App

CS Visual is a mobile app created in React Native for Android and iOS that acts as a teaching aid for Computer Science students by providing visualisations of how popular sorting algorithms operate

- Self-taught React-Native for the project
- Gained an appreciation of the techniques required to create responsive mobile applications
- Strengthened my understanding of sorting algorithms
- Utilised animations to aid users understanding of what the algorithms are doing
- Collaborated with third parties to design a clean and beautiful UI

2020 - University Project - Folio.Exchange: An E-Portfolio Website

Project Repository: www.github.com/thomasbowes/UNIMELB-IT-PROJECT

Folio.Exchange is an online e-portfolio website created as the capstone project for the Computer and Software Systems Major

- Collaborated with 4 other students, remotely, on a large software project
- Led discussions within team and client meetings, ensuring everyone felt comfortable and had the opportunity to contribute their ideas
- Utilised source control techniques through GitHub including: Product Feature Branches, Pull Requests, Merging, etc
- Practiced and developed skills in front-end web technology
- Achieved a top 4 placing in final product presentations and was invited to present at the University of Melbourne CIS Seminar

2020 - Extra-Curricular Competition: University of Melbourne Minidrone Competition

The University of Melbourne Minidrone Competition is an extracurricular activity run in conjunction with Math Works. The project consists of teams with 3-4 participants who work together to program an aerial drone that has to follow a line quickly and accurately

- Achieved 1st place out of over 15 teams
- Collaborated with students of various disciplines to achieve a working product
- Implemented simple computer vision techniques, that were efficient enough to be computed on the drones limited hardware power
- Collaborated successfully with others in an online environment

TECHNICAL SKILLS

Languages: Proficient in CSS, HTML, JavaScript, Python; Familiar with C, Java, R

Frameworks: React and React Native

Databases: Familiar with databases, database design and PostgresSQL

Other: Proficient with git source control

KEY ACHIEVEMENTS

- 2021 - University of Melbourne, Melbourne Graduate Access Bursary recipient
- 2020 - University of Melbourne, Leader in Community Award recipient
- 2018 - University of Melbourne, Access Melbourne Scholarship recipient

REFERENCES – Available on request