ZAC HOANG

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EDUCATION

University of Melbourne   **Parkville, 3052**
*Master of Software Engineering - **Cyber Security***   *Mar 2023 - Nov 2024*
- Melbourne Global Graduate Scholarship

University of Melbourne   **Parkville, 3052**
Bachelor of Science - Computing & Software Systems   *Mar 2020 - Nov 2022*

SKILLS

- **Programming languages:** Java, JavaScript, TypeScript, Python, C, C#, SQL, HTML/CSS, R
- **Framework/Libraries:** ReactJS, NodeJS, TailwindCSS, ExpressJS, Spring Boot, .NET/ASP.NET Core, Jest
- **Tools:** Git, Docker, AWS, Postman, MongoDB, GraphQL, Trello, Jira
- **Concepts:** AGILE, Design Patterns, OOP, Relational Databases

PROFESSIONAL EXPERIENCE

Accented AI - Sydney - Internship   **Nov 2024 - Now**
Full-stack Software Engineer
- Developed custom **GraphQL** and **TypeScript** endpoints, optimising key querying and mutation functionalities for **5,000+ initial users**
- Automated inactive and requested **user account deletion** with **Celery Beat**, ensuring **100% compliance** with resource cleanup policies
- Engineered a queueing system to reduce **OpenAI Text-To-Speech request** overhead by **50%** through **rate-limiting** with **Celery** and **Lexi**
- Recommended **5+ UI experience enhancements**, increasing user satisfaction by **25%**

AAkonsult Pty Ltd - Melbourne - Internship   **Feb 2024 - Nov 2024**
Full-stack Software Engineer
- Developed **Lightning Web Components** for a major client's membership portal on **Salesforce's Experience Cloud**, enabling **real-time** member data retrieval
- Designed **dynamic UI components** using **JavaScript** and integrated Salesforce backend **(Apex)**, improving loading time by **25%** and enhancing **user experience**

SSMedia Software - Internship   **Nov 2023 - Feb 2024**
Full-stack Software Engineer
- Collaborated with 5 developers to build an intra-company task management system using **Spring Boot**, enabling **200+ employees** to **concurrently** assign and monitor tasks
- Implemented automated task creation, assignment and reminder, reducing manual effort by **50%** and improving task completion rates by **30%**
- Administered **usability testing** with leaders from 4 departments, receiving **100% satisfaction** with the final product
- Authored **comprehensive system documentation** to facilitate integration and maintenance, including step-by-step guides and video tutorials

PROJECTS

Melbourne Connect - Event Scheduler & Management System
Full-stack Software Engineer
- Collaborated in a team of 10 following **AGILE methodologies** to develop an event management system to streamline end-to-end workflows
- Developed **user-friendly, dynamic and responsive** dashboard components for event coordination, supporting guest speakers, catering services, venue booking and finance reporting
- Implemented and integrated **RESTful APIs** to automate communication with guest speakers, reducing workload by **75%**

- Presented the final product in the University of Melbourne's **Endeavour Exhibition**, attracting multiple academics, sponsors and business partners
- Technologies: **ReactJS**, **NodeJS**, **TypeScript**, **Docker**, **Jest**, **Git**, **GitHub**, **Airtable**

Crypto volume tracking bot
- A **Python** bot leveraging the power of LLMs to retrieve **real-time** token data from DexScreener and pump.fun
- Implemented blacklist to identify developers with a history of mass-selling tokens
- Connected with personal Telegram account to receive notifications on potential tokens, achieving a win rate of **70%** and an average return of **$100** a day

Student Engagement Evaluation
- Web application to monitor students' engagement in a subject (up to **500 students** per subject) by recording the weighted average of participation scores across all class activities
- Conducted research on linking **SSO authentication** with the University of Melbourne
- Technologies: **ReactJS**, **Spring Boot**, **Docker**, **PostgreSQL**

Flappy Bird 3D - _Gameplay Demo_
- Designed a 3D version of the classic Flappy Bird game using **Unity** and **C#**, building custom physics and game mechanics with ray tracing
- Implemented **procedural level generation**, dynamically adjusting pipe placements to ensure randomness

Text Sentiment Classifier Comparison - Machine Learning
- An investigation into suitable classifiers to determine sentiments of Tweets on Twitter. The 3 chosen classifiers were Multinomial Naive Bayes, Logistic Regression and Support Vector Machine, implemented in **Python**
- Implemented TF-IDF vectorisation and feature engineering to remove noises; Verified results with stratified k-fold cross validation

LEADERSHIP & ACHIEVEMENTS
- **Founder**: Opened and managed a small business selling phone cases during secondary school, obtaining 10K+ followers on Instagram and contributing profits towards my university fund
- **Silver Medalist - Mathematics**: 11th International Mathematics and Science Olympiad 2014 ([Link to article](#))
- **AAkonsult Pty Ltd:** Organised introductory **Salesforce Experience Cloud workshops**, training 2 interns and accelerating their onboarding
- **SSMedia Software:** Conducted user training for **150+ non-technical employees**, reducing post-deployment support requests by **40%** and assisting future onboarding processes
- **Melbourne Connect - Event Scheduler:** Conducted pair programming sessions to implement new features and ensure code quality, resulting in a **40% increase** in client's satisfaction and higher team productivity
- **Founder**: **Started** and **managed** a small business selling phone cases during secondary school, gaining over **10,000** followers on Instagram and using profits to contribute to my university fund