# Joe (Haochuan) Zhou

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## PROFESSIONAL SUMMARY

Highly motivated Master of Computer Science student with a High Distinction average, specializing in full-stack development. Proficient in modern web technologies including React.js, Next.js, and Node.js, with hands-on experience in building scalable applications. Passionate about building high-performance, modular applications and automating development workflows. Eager to apply strong technical skills and problem-solving abilities to new challenges in a collaborative environment.

## EDUCATION

**Master of Computer Science**          **University of Wollongong**                    **Jul 2023 – Jul 2025**

- Achieving **High Distinction** Average **(90.4/100)**
- Recipient of **Postgraduate Academic Excellence Scholarship** (2023)

**Bachelor of Economics**          **Jiangxi University of Finance and Economics**          **Sep 2014 – Jul 2018**

- Graduated with **Distinction**

## KEY SKILLS

**Technical Skill**

- Frontend: TypeScript, JavaScript, HTML/CSS, Tailwind CSS, Shadcn/ui
- Backend: Python, PHP, C#, Node.js
- Database: SQL, MySQL, PostgreSQL, Redis, MongoDB, GraphQL
- Frameworks: Express.js, React.js, NextJS
- Developer Tools: Git & GitHub, Docker, AWS, WordPress, Jira, Vercel, Clerk

**Language**

- English, Mandarin, Cantonese

## INTERN EXPERIENCE

**I Ching Walkers Australia Pty Ltd**, Sydney | **IT Intern**                    **Dec 2023 – Mar 2024**

Description: Web system for mobile prayer application, allowing users to interact with and learn about Eastern spiritual and cultural practices.

Technologies: Rest API, OpenAI Platform

- Assisted in prompt engineering for both text and image generation, enhancing AI character interactions and integrating **DALL-E 3** for text-to-image functionality.
- Processed and prepared classical philosophical texts to fine-tune a custom **GPT-3.5 Turbo model**, improving the logical coherence of its dream interpretation feature.
- Worked on integrating APIs, including summarizing official API documentation and **performing functional testing**, ensuring the reliability and availability of third-party services.

## PROJECTS

**Portfolio** | NextJS, Redis, Prisma, Sanity, TypeScript

Description: A personal portfolio website for showcasing blogs and projects and leaving messages.

- Architected a data layer with **Prisma ORM** to ensure type-safe, predictable data operations, significantly reducing bugs and improving development speed.
- Integrated **Sanity CMS** to enable a user-friendly content management system, empowering non-technical users to publish and update blog content with ease**.**
- Optimized data retrieval with **Redis caching**, effectively cutting down load times for frequently accessed content like message record by leveraging in-memory storage.
- Link: https://www.joechow.me/

**3D Snake Game** | Three.js, OOP, Zustand, React, GitHub Action/Pages

Description: An interesting 3D snake game using Three.js, supporting both PC and mobile.

- Architected a **Three.js-based** game engine using a class-based structure, centralizing core game logic within a **GameControl class** that orchestrates individual game entities for high cohesion and scalability.
- Built the user interface with **React**, intentionally **isolating the game canvas** from UI layers to enhance modularity and maintain performance.
- Employed **Zustand** as the state management tool to create a clear and efficient communication channel between the game logic and the React UI.
- Set up a **CI/CD pipeline with GitHub Actions** to automate the build and deployment of the application to **GitHub Pages**, streamlining the development workflow.
- Link: https://joyjoy998.github.io/3d-snake-game/

**Smart Renting** | Supabase, Clerk, Google Maps API

Description: An interactive map tool website to help tenants to make rental decisions.

- **Engineered an interactive map tool** with the **Google Maps API**, providing users with a visual and intuitive way to evaluate potential rental properties and points of interest**.**
- **Integrated Clerk authentication** with the **Supabase** permission system to create a robust and secure user management solution, ensuring consistent user identity and secure data access.
- **Developed a personalized archive management system** to allow users to save and organize properties, streamlining the rental decision process and improving user engagement**.**
- Link: https://www.smartrenting.studio/

**Tourism Information Center** | Rest API, AWS Serverless Service

Description: A tour information site for easy planning and booking with event notification.

- Developed the frontend using **HTML, CSS, and JavaScript**, ensuring a responsive user experience for tour planning and booking.
- Implemented **multi-language microservices** with **Node.js and Python**, demonstrating proficiency in a polyglot environment and enhancing system flexibility**.**
- Architected a **scalable, full stack serverless system** based on **AWS Lambda** and **API Gateway**, enabling **event notification** and efficient communication between the frontend and backend.
- Link: https://github.com/joyjoy998/Tourism-Information-Center

## VOLUNTEER EXPERIENCE

**NDC Sydney** | Volunteer                                                                                                                    **Feb 2024**

Description: One of the world's leading software developer conferences.

- Supported various aspects of the conference, potentially including registration, session management, speaker assistance.
- Engaged with industry leaders and developers, expanding professional network and communicating industry technology trends.

## CERTIFICATES

- Azure Fundamentals                                                                                                                          **May 2025**
- Foundational C# with Microsoft                                                                                                            **Apr 2025**

## Reference

References available upon request.