

Henry Chen

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in [Henry Chen](#)

📍 Perth

- Techno-Creative: Passionate about fusing technology and creativity for optimal results.
- Perfectionist: Committed to excellence and meticulous attention to detail.
- Curious Explorer: Continuously eager to learn, grow, and delve into new challenges.

Projects

AASYP Chat System | *Python, Django, WebSocket, React, PostgreSQL, Docker* Aug 2024

- Developed a full-stack web application for internal communication at ASEAN-Australia Strategic Youth Partnership (AASYP), utilizing Django for backend and React for frontend, ensuring real-time messaging via WebSocket.
- Managed user profiles and chat history using PostgreSQL, supporting complex queries and ensuring efficient data handling under high concurrency.
- Deployed the application using Docker with a separation of frontend and backend, ensuring consistent environments and minimizing configuration issues.
- Led the implementation of CI/CD pipelines using GitHub Actions, automating testing and continuous deployment, ensuring high performance and security.

Smart Vision Hat(IoT) | *Python, Flask, HTML/CSS/JS, Firebase, Bash Scripting, Github Action* Oct 2023

- Delivered a fluid user experience by crafting a front-end interface with Flask and Python and integrating Firebase for authentication and data management.
- Elevated user accessibility, especially for the visually impaired, by introducing a GPT-3.5-Turbo API-driven AI feature, facilitating voice-activated engagements.
- Orchestrated Continuous Integration and Continuous Deployment workflows using GitHub Action, leveraging SSH for secure server connections.

Cinema Ticket Booking System | *Figma, Agile Development - Scrum, CI/CD* Nov 2021

- Streamlined the design workflow by innovating an interactive Figma prototype, supporting development with clarified user flow diagrams.
- Maintained project cohesion and timely outcomes by spearheading daily scrum sessions and Sprint Reviews using Agile practices.
- Boosted system usability and reduced user errors by conducting in-depth user testing and writing extensive documentation that included functional specifications, system architecture, and user manuals.

OneHarvest VR Training Experience | *Agile Development - XP, Unity* Aug 2022

- Led a team in 5 distinct XP roles over a 13-week period, enhancing project efficiency by implementing streamlined communication processes as Tracker, Manager, Customer Liaison, Tester, and Programmer.
- Authored and maintained 20+ BitBucket wiki pages and progressive reports, fostering transparency and knowledge sharing among the team by enhancing knowledge accessibility.
- Boosted team collaboration by acting as the central communication hub, reducing project delays and enhancing overall project efficiency.

Parallel Implementation of Search based on Fish School Behaviour | *C, OpenMP, MPI* Sep 2023

- Achieved a dynamic simulation of fish school behavior by designing a sequential C simulation that enables diverse testing scenarios through adjustable simulation steps and fish numbers.
- Enhanced the program's speed by introducing a multi-threaded implementation with OpenMP and distributed memory parallelism with MPI, allowing for fine-grained experimentation with process and thread counts, scheduling strategies, and advanced parallelization techniques.
- Recorded a remarkable speedup, achieving 100x performance improvement compared to the serial model when utilizing 4 processors and 32 threads

Education

- **University of Western Australia** *Feb 2023 - Dec 2024*
 - Master of Information Technology
 - UWA Global Excellence Scholarship
- **University of Sydney** *Feb 2020 - Dec 2022*
 - Bachelor of Computing, Computer Science
- **Shanghai Jiao Tong University** *Jun - Jul 2021*
 - Summer School Program

Work Experience

- **HD Education - Senior Math Tutor** *Jul 2019 – Jan 2023*
 - Devised and implemented targeted curricula with innovative teaching techniques.
 - Fostered a supportive learning environment through strong communication with students.
 - Tailored lesson plans based on individual student progress for improved understanding and retention.
- **Path of Hope Foundation - IT and Data Intern** *Jul 2024 – Oct 2024*
 - Conducted data extraction, transformation, and loading (ETL) processes, along with data cleaning and visualization, contributing to the foundation's "HOPE Report: 100 Years and One Hundred Reports" initiative aimed at preventing family domestic violence.
 - Migrated the foundation's official website to a more secure and scalable platform, enhancing user experience and overall site performance.
 - Collaborated with leadership and cross-functional teams to develop IT and data management improvement strategies, ensuring alignment with organizational goals and best practices.

Skills

- **Programming Languages:** Python, Java, C, HTML/CSS, JavaScript, SQLite, R
- **System/Dev Tools:** Linux, Docker, Git, Github Action, Flask, QGIS
- **Design:** Figma, Lightroom, Photoshop

Extracurricular

- **Law Revue UNSW - Volunteer Photographer & Videographer** *Apr – Jul 2022*
 - Collaborated with video team members to capture stage performances of actors and singers at the theatre.
 - Designed and illustrated promotional posters by taking studio portraits of revue casts, managing lighting setups, and effectively communicating with cast members to achieve desired outcomes.
 - Acted as the Director of Photography (DoP) for video segments, overseeing camera movements, framing, and making decisions regarding equipment selection, including cameras, microphones, and lighting.
- **DDD Perth** *Oct 2023*
 - Engaged with leading industry professionals through ice-breaking games and interactive communication, acquiring insights into the visibility of developers in 2023.
 - Enhanced professional relationships and improved knowledge through collaborative discussions by networking with fellow attendees.

References

- Alice Han
Influencer (Former Employer)
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- Kevin Wang
UNSW Law Revue Vice President
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