Jerry Hong

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EDUCATION

University of New South Wales   **Kensington, Sydney**
B. Computer Science & Mechatronics Engineering   *Expected Graduation - 2025*
- **WAM: 89**
- Society **Executive** - UNSW MechSoc (Society of Mechanical and Manufacturing Engineering)
- **Scientia Scholarship** Recipient
- Peer mentor - UNSW CSESoc (Society of Computer Science and Engineering)
- Dean's Honor List (2023)

Cranbrook School   **Bellevue Hill, Sydney**
*High School Certificate - **ATAR 99.90 (45/45 IB)***   *2017 - 2022*
- Senior Prefect
- Recipient of STANSW **Gold Award** - Research Project "*Investigating Hall Effect on varying toroidal magnetic fields*"

WORK EXPERIENCE

Learnable   **CBD, Sydney**
Content Developer, Physics   *2023 Jan - Current*
- Designed and implemented a question analytics system using **JavaScript** and **Google AppScript**, which significantly improved **data processing efficiency by 40%**. This system has been fully integrated into a multi-year product development plan, demonstrating its long-term utility and impact.
- Developed "**ExamSnap**," a **Python** program that automates the extraction of questions from exam paper PDFs. This solution **enhanced productivity** by reducing **question capture time by 500%**.
- Utilised **MySQL** to lead the development, optimization, and enhancement of an extensive educational content repository of over 1000+ questions.
- Emplyed **Confluence** to document development processes for a question analytics system, enhancing transparency and consistency.
- Leveraged **Jira** to manage biweekly sprints and streamline task assignments with CI automations in the content team.
- Extensively employed **prompt engineering** to develop **custom GPT models**, enhancing question authoring efficiency by 60%.

PROJECTS   (Visit https://github.com/jerryhong21)

Pre-Poker Solver (Python)
Developed an AI-based poker solver using the Counterfactual Regret Minimization (CFR) algorithm in Python to approximate Nash Equilibrium, generating strategy profile for each decision node in game.

Portfolio Website (Typescript, React, Next.js, TailwindCSS)
Engineered a portfolio website using **React, TypeScript, Next.js, and Tailwind CSS**, delivering a modern and **intuitive UI/UX**. Integrated the Resend API for in-app emailing functionalities and deployed the application on Vercel.

PDF Scraping Tool (Python)
Developed a PDF question extraction program capable of bulk screenshotting exam PDFs, achieving an impressive average runtime of one second per paper. This tool streamlines the digitization of exam documents, significantly enhancing processing speed and efficiency.

WebApp- Restaurant Finder (Javascript, React, CSS)
Developed a restaurant search website using **React** and the **Yelp API**, enabling users to effortlessly find restaurants by **categories, locations, and sorting preferences**. The site features a simplicity-driven design with clear visuals and an intuitive interface, enhancing user experience through effective UI/UX principles.

SKILLS & INTERESTS

Programming Tools: Python • Java/TypeScript • C • React js • Next.js • PostgresSQL • MySQL • Git

Dev Tools: JIRA • Confluence

Collaborative: Sprint management, CI Automation Integration, Team Collaboration