

Leo Tong

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Summary

Penultimate-year Computer Science and Actuarial Studies student with a strong foundation in algorithms, data structures, and software development. Proficient in Python, JavaScript, SQL, and Vue.js, with a passion for full stack development, problem-solving, and open-source contributions. Continuously expanding technical expertise through hands-on projects.

Education

University of New South Wales, Bachelor of Actuarial Studies and Computer Science 2023 – Present

Work Experience and Volunteering

Physics/Mathematics Lead Tutor, Educo Tutoring – Edmondson Park 2023 – Present

- Designed custom learning materials using **LaTeX**, including structured mock exams and study guides.
- Delivered **structured lessons** to meet individual student needs, ensuring effective comprehension of complex topics.
- Developed interactive tools to help students visualize physics concepts, improving engagement and understanding.

Mentor & Externals Subcommittee Member, UNSW Comp Club 2023 – Present

- Supported the execution of on-campus **coding workshops**, helping high school students engage with programming.
- Assisted in the organization of **club activities and events**, contributing to outreach and community engagement.
- Participated in regional outreach by visiting **rural schools across NSW** to run hands-on coding workshops and promote digital literacy.

Projects and Open Source Contributions

flowZH — Interactive Chinese Learning Platform Website Link

- Designed and launched a gamified learning platform built with **Vue.js**, **TypeScript**, and **Express.js**, aimed at helping users learn Chinese through short, engaging activities rather than textbook-style content.
- Developed interactive games and downloadable resources to reinforce vocabulary and character recognition.
- Refactoring original browser-based games and rebuilding them in **Unity (WebGL)** to enhance runtime performance, scalability, and user experience across devices.

ZiTube — Data-Enriched Language Learning Platform Repository Link

- Building a video-based platform for language learners that integrates **subtitle data**, **word-level translations**, and **linguistic annotations** using structured language datasets.
- Designed a parsing system leveraging **CC-CEDICT** and **custom word frequency data** to provide contextual definitions and highlight key vocabulary.
- Planning to incorporate search and filter features based on parts of speech, collocations, and usage frequency to support data-driven language acquisition.

Open Source Contributor, npm / PyPI NPM Profile

- Published several **open-source utility packages** focused on **text parsing**, **data scraping**, and minimal API design.
- Prioritized **robust testing** and **edge-case coverage**, ensuring reliability even for small, focused libraries.
- Wrote **clear, comprehensive documentation** to support ease of use and **developer adoption**.

Technical Skills

Languages & Tools: Python, JavaScript (ES6+), Java, SQL, C#, R, ~~HTML~~ \LaTeX

Frameworks & Libraries: Vue.js, NumPy, Pandas, Tidyverse, Jest, PyTest, Vitest

Dev Tools & Platforms: Git, GitHub, Docker, Vercel, Unity (WebGL), Supabase, Express.js

Productivity & Documentation: Markdown, GitHub Actions, Microsoft Office