Tim Zhang

EDUCATION

University of New South Wales (UNSW)

February 2019 - Present

2nd year student – Bachelor of Science (Computer Science) and Bachelor of Engineering (Electrical)

- WAM: 92.00 (HD)
- Awards:
 - O University scholarship: Academic Awards Achievement (AAA).
 - O Atlassian 1st place prize (2020) for achieving the highest grade in Data Structures and Algorithms out of 429 candidates.
 - o Faculty of Engineering Dean's Award (2020) for being among the top 25 highest performing students across *all* 1st/2nd year students in UNSW's School of Engineering.

WORK EXPERIENCE

Academic Tutor — University of New South Wales

June 2020 - Present

Taught Data Structures and Algorithms (COMP2521).

- Delivered 1-hour online tutorials to a class of 20 students each week.
- Delivered 6 hours of lab demonstrations to over 70 students each week.
- Volunteered 4 hours in additional help sessions and answering online course forum questions each week.
- Achieved a teacher rating of 5.89/6.00 with the average rating being 5.14/6.00 in the School of Engineering.

Freelance HSC Tutor

September 2019 – June 2020

Worked as a freelance private tutor, organising face-to-face lessons in HSC physics and mathematics.

PROJECTS & EXTRA-CURRICULAR

- Developed a full-stack web application for social networking and collaboration from scratch using React, Flask and PostgreSQL. This project involved implementing a REST API, programming with web sockets and consuming external APIs. Viewable demo at: techsuite.dev.
- Developed computing resources for UNSW students, including a suite of interactive data structures and algorithms written in C. This project also involved writing automation scripts in Bash and Perl. Viewable demo and source code available at: github.com/Tymotex/DataStructures.
- Developed an open-source cross-platform sci-fi strategy game with C# and the Unity game engine and published it online. Playable demo and source code available at: github.com/Tymotex/Cosmica.
- Worked in team of 4 to develop a prototype in 24 hours for an educational web app driven by deep learning using React and Next.js. Achieved 1st place out of 37 participating teams across Australia in Accenture's 'Hack for Good' Hackathon (2021). Prototype viewable at: galactic-ed.xyz/
- Developed an IoT plant propagating system with Python, Flask and InfluxDB which automatically posts data snapshots to a REST API. This project also involved building a web dashboard for controlling motors and viewing real-time sensor data. Source code: github.com/Tymotex/Hydroponix.
- Led a team of 8 in developing an autonomous delivery vehicle over 9 weeks and produced the only functional prototype out of 144 participants. Showcase: youtube.com/watch?v=ogIqlcZ1EoI.
- Led a committee of 10 people in organising a week-long charity drive for North Ryde Community Aid.

SKILLS

- Proficient: C, Python, JavaScript, Node.js, React, Perl 5, Shell scripting
- <u>Familiar:</u> Java, C#, MongoDB, PostgreSQL, Git, SCSS, Redux, PyTorch, jQuery, Flask, Express, Gatsby
- <u>Learning:</u> Docker, Ruby, NextJS, Angular, TypeScript, C++