# Tim Zhang

## **EDUCATION**

# University of New South Wales (UNSW)

February 2019 - Present

2<sup>nd</sup> 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 Received the Atlassian 1st place prize for achieving the highest grade in Data Structures and Algorithms out of 429 candidates.
  - o Received the Faculty of Engineering Dean's Award (2020) for being among the top 25 highest performing students across *all* 1<sup>st</sup>/2<sup>nd</sup> year students in the School of Engineering.

# Ryde Secondary College

2013 - 2018

- ATAR: 99.45, Dux of Year 11 and Year 12.
- Student Representative Council member for years 2013-2017 and school prefect member in 2018.

#### 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 using React, Flask and PostgreSQL. This project involved implementing a REST API and programming with web sockets and 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 at: data-structures.xyz.
- Developed an open-source cross-platform sci-fi strategy game with C# and the Unity game engine and published it online. Demo and source code viewable at: github.com/Tymotex/Cosmica.
- 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, SQL, Git, SCSS, Redux, PyTorch, jQuery, Flask, Express
- <u>Learning:</u> Docker, Gatsby, Ruby