# FELIX CAO

Sydney, NSW 2209

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## Summary

A software developer focused on back-end engineering, most recently at global logistics company WiseTech Global. Passionate about designing elegant solutions to complex problems, especially in system architecture and data engineering.

## Education

**University of New South Wales**                                     **Feb. 2021 – May. 2025**
*Bachelor of Computer Science and Science (Statistics)*                          *Sydney, NSW*

WAM: 89.607; The Faculty of Engineering Dean's List (2021 - 2023). The Faculty of Engineering Dean's Award - Top 100 in cohort of 6,700 UNSW Engineering students (top 1.5%) in terms of WAM (2021).

**University of Toronto**                                             **Sep. 2024 – Dec. 2024**
*Student Exchange*                                                         *Toronto, Ontario*

## Experience

**Tutor - Data Structures and Algorithms**                           **Sep. 2021 – Present**
*UNSW School of Computer Science and Engineering*                               *Sydney, NSW*

- Tutored multiple classes of up to 24 students in the COMP2521 Data Structures & Algorithms course covering topics including recursion, trees, graphs, algorithmic analysis and sorting algorithms.
- Designed lessons to engage students through detailed and visual tutorial plans and learning resources. Provided constant constructive feedback to students based on code style, algorithm efficiency and quality of understanding.

**Associate Software Engineer**          **Jan. 2024 – Aug. 2024, Mar. 2025 – Jul. 2025**
*WiseTech Global*                                                              *Sydney, NSW*

- Developed enterprise productivity software with the PAVE team using Vue and C#. Contributed to features involving task tracking and work item customisation in both high-level design and backend/frontend development.
- Enhanced freight forwarder workflows on the Allocations Management team by implementing multi-route booking support and adapting 20+ complex C#-based columns in the Quoted Bookings table for WiseTech's web portal.
- Maintained data pipelines on the Business Intelligence team by resolving defects and delivering enhancements, including enforcing Change Data Capture for all customers and integrating the Enterprise Data Warehouse for report generation.

## Projects

**Strava Discord Bot** | *JavaScript, MongoDB*                       **Dec. 2021 – Feb. 2022**

- Implemented a Discord bot for athletic competitions, integrating Strava's API (including OAuth) and an ExpressJS-based system to authenticate users and fetch weekly running data, stored in MongoDB models.
- Engineered user commands with DiscordJS to display weekly leaderboards based on distance/time run, profile summaries, and visualise athlete progress using ChartJS line graphs.

**WorkWaves** | *TypeScript, Node.js, React.js*                      **Sep. 2023 – Dec. 2023**

- Collaborated with a team of five to created a platform connecting professionals with companies through advertised projects. Main responsibilities included designing the Project page and launching video interview functionality.
- Programmed with TypeScript, React, DrizzleORM, PostGreSQL, Docker, and tRPC for seamless authentication and data management. Git and Jira were used for version control and managing work respectively.

## Extracurricular

**Computer Science and Engineering Society (UNSW CSESoc)**
*Socials Director*                                                   **Nov. 2021 – Nov. 2022**

- Coordinated 22 CSESoc Weekly BBQs for approx. 240 students a week, providing the UNSW community a regular means to interact with the CSE student body as well as company representatives during sponsored BBQs.
- Organised a university orientation camp for 150 first-year students. Over three months, 35 camp leaders were recruited and trained, budgeting and ticketing were managed and three days worth of activities were planned and run.
- Led a team of subcommittee members to organise a CSESoc Halloween Party for more than 100 students, an Outdoor Cinema Night for approx. 70 students and a Welcome BBQ for approximately 300 students.

## Technical Skills

**Languages**: C#, HTML/CSS, JavaScript, Java, C, Python
**Technologies/Frameworks**: ReactJS, VueJS, Linux, Git, NodeJS, ExpressJS, MongoDB