# Tom Golding

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#### **Technical Skills**

JavasScript | TypeScript | Python | Java | C++ | C# | Swift | SwiftUI | React | .NET | Node.js | Flask | FastAPI | PyTorch | Firebase | MySQL | MongoDB | Three.js | Git | HTML | CSS | CI/CD | OOP | Design Patterns | Software Architecture

#### **Education**

#### **University of Technology Sydney**

March 2021 - June 2025

GPA: 6.25 | WAM: 83.75

Bachelor of Computing Science (First Class Honours), Major in Enterprise Systems Development

**Related coursework** Data Structures & Algorithms, Advanced Algorithms, Theory of

Computer Science, Web Systems, & Fundamentals of Interaction

Design.

**Course Achievements** Dean's List 2023, 2024, and 2025.

# **Relevant Experience & Projects**

### **Solar System Simulation** (in progress)

February 2025 - Present

- Tools used: Typescript, Three.js, Python, & Flask.
- Developed a 3D interactive solar system simulation using Three.js, modelling planets and moons with real-world data from the Solar System OpenData API.
- Built a Python backend to efficiently fetch, cache, and serve astronomical data, facilitating accurate simulation of orbits, scale, and educational context.
- Implemented data caching and bundling techniques to optimise performance for web delivery.

# **Drone Trash Detection Application**

March 2025 - June 2025

- Tools used: Python, PyTorch, TKinter, & Ultralytics.
- Collaborated in a two-person team to develop a desktop application for detecting trash in drone footage, contributing the majority of the core functionality, including model training, optimisation, and backend development using YOLOv8 and OpenCV.
- Designed a TKinter-based GUI supporting both live webcam and MP4 video input, enabling real-time and recorded analysis through an intuitive interface.

### **Assignment Planner**

August 2024 - October 2024

- Tools used: C#, .NET, & MySQL.
- Built a semester-based assignment planner that helps students track upcoming tasks, manage assignment marks, and calculate subject-specific grades.

• Designed with a focus on usability, enabling students to plan their workload and monitor academic progress efficiently.

# **Weather Application**

March 2024 - June 2024

- Tools used: Swift, SwiftUI, & WeatherAPI.
- Led development and collaborated with a team to produce a sleek weather application using SwiftUI to display real-time weather conditions and location-based forecasts.
- Used SwiftUI to display real-time weather conditions and location-based forecasts, incorporating modern UI elements like glassmorphism for a polished experience.

# **Work Experience**

#### **University of Tech Sydney - Academic Tutor**

February 2024 - June 2024

- Facilitated student learning in Data Structures and Algorithms through personalised instruction and interactive sessions.
- Clarified core concepts, demonstrated problem-solving strategies, and guided students through challenging exercises and projects.
- Provided practical examples and support to reinforce algorithmic design principles.
- Fostered a supportive learning environment to help students build strong computer science fundamentals.

#### Aldi - Retail Assistant

April 2019 - Present

- Consistently handled high-volume customer service and transactions, contributing to efficient team workflow and customer satisfaction.
- Collaborated with a 20+ team across multiple store locations to coordinate restocking, merchandising, and daily operations.
- Maintained store presentation and cleanliness, contributing to positive customer feedback and compliance with safety standards.

#### **About Me**

Outside of coding, I stay active through regular gym training and running, with an aspiration to complete a marathon. I also enjoy playing guitar, especially blues music inspired by Eric Clapton. Both music and fitness help sharpen my focus, discipline, and creativity — qualities I bring into technical problem-solving.

### References

References available on request.