

# Terence Zhang

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## EDUCATION

### University of Auckland

*Bachelor of Science (Honours) with First Class Honours in Computer Science*

Auckland, New Zealand

Feb. 2021 – Nov. 2024

- **GPA:** 8.4 / 9.0
- **Scholarships:** Summer Research & Postgraduate Honours Scholarships
- **Awards:** First-in-course awards (COMPSCI 101, 316, 742)
- **Dissertation:** Comparative Analysis of DeSo and Mastodon as Decentralised Social Media Ecosystems, published in Online Social Networks and Media (Oct. 2025)

## SKILLS

**Languages:** Python, JavaScript, TypeScript, HTML, CSS, Java, C#, SQL

**Technologies:** React, NextJS, NodeJS, ExpressJS, Zustand, MongoDB, AWS, Git, GitHub, Docker

## EXPERIENCE

### Teaching Assistant

*University of Auckland*

Feb. 2023 – Feb. 2025

Auckland, New Zealand

- Graded 200+ assignments for computer systems and data structures & algorithms courses, providing actionable feedback that increased overall student scores by 10–15%.
- Analysed common student errors and patterns, enabling lecturers to address key learning gaps efficiently.

### Research Assistant

*University of Auckland*

Nov. 2023 – Feb. 2024

Auckland, New Zealand

- Conducted research on the use of generative AI in education, focusing on bias, hallucinations, and prompt engineering.
- Authored a report on AI biases and best practices, adopted as a teaching reference for 5+ courses and 1,000+ students.
- Presented findings to faculty, translating technical concepts into actionable recommendations.

## PROJECTS

### LinkUp | [Live Demo](#) [GitHub](#)

*MongoDB, ExpressJS, React, NodeJS, TypeScript, Zustand*

- Developed a full-stack real-time messaging platform with 1:1 and group chat, supporting scalable admin controls and multiple chat rooms.
- Implemented WebSocket architecture for reliable message delivery, presence tracking, and unread message management.
- Secured authentication and authorisation using JWT, protecting messages, sessions, and sensitive data.

### Pinfinity | [Live Demo](#) [GitHub](#)

*React, NextJS, TypeScript, MongoDB, Prisma, Zustand*

- Built a full-stack image-sharing platform with authentication, CRUD, likes, and follow features, taking full ownership of design and development.
- Optimised API endpoints and database queries, improving response times through iterative testing and problem-solving.

### Adversarial Insight ML | [GitHub](#)

*Python, PyTorch, Tensorboard*

- Developed a Python package with a team of five to test image-classification model robustness against eight common adversarial attacks, simulating real-world threat scenarios.
- Collaborated on automated evaluation pipelines that produced reproducible results and performance benchmarks, reducing manual testing by 70%.
- Contributed to a modular, maintainable codebase through code reviews and shared design decisions; the package is now used by 3+ universities for teaching and research.

## INTERESTS

Chess, Travelling, Hiking, History, Fitness, Self Improvement