

# Kay Tang

Final Year Software Engineering Student @ UoA

☎ (+64) 020-4124-2181

✉ tangkay10k@gmail.com

in linkedin.com/in/tangkay10k

github.com/ktan185

## Education

### The University of Auckland

Feb 2022 – Nov 2025

*Bachelor of Engineering (Honours) in Software Engineering*

- **GPA: 8.76/9.0**
- Top in Course Awards:
  - COMPSYS 201: Fundamentals of Computer Engineering
  - SOFTENG 281: Object-Oriented Programming
  - SOFTENG 284: Data Structures and Algorithms
- Dean's Honours List: 2022, 2023, 2024 (**Top 5% of cohort**)
- Societies: Software Engineering Student Association (SESA), Web Development & Consulting Club (WDCC)

## Work Experience

### Canva

Dec 2024 – Feb 2025

*Backend Engineering Intern*

- Design and developed a native client library to **sandbox third-party executables**
- Prevented ML backends dependency vulnerability escapes as part of the Security Platform Engineering team, **protecting user generated content**
- Documented **Kubernetes (K8s) infrastructure** deployment process for sandboxing ML backend services, streamlining future migrations and ensuring consistent deployment practices

### The NZPMC Ltd

Nov 2023 – Feb 2024

*Fullstack Web Developer Intern*

- Improved user experience and features of the registration platform as part of an 8-member team
- Developed a news dashboard, enabling staff to manage a centralised notification system for **900 users**
- Worked extensively with **MongoDB, Java Spring** and **React.JS**

### The University of Auckland

Dec 2023 – Feb 2024

*Summer Research Scholarship*

- Researched the potential for Large Language Models (**LLMs**) in automated improvement of assertion oracles
- Tested various prompt engineering techniques, including Zero-Shot, Few-Shot and Chain-of-Thought prompting for generating more accurate responses
- Developed a prototype tool in **Java** in conjunction with **shell** scripts and experimented on 34 test subject

## Projects

### Video Processing Service

November 2023

*Tech Stack: Typescript, React, GCP, Firebase*

[DEMO](#) | [GITHUB](#)

- Developed a video sharing web app due to frustration of not being able to swiftly share game highlights with friends for free
- Video processing service containerised with **Docker** and deployed on **Google Cloud Run**
- Processed videos stored using **Google Cloud Buckets**
- User and video metadata stored in **Firestore** utilising Cloud functions for querying

### Infiltr-AI-te

August 2023

*Tech Stack: Java, JavaFX*

[DEMO](#) | [GITHUB](#)

- Co-developed (team of 3) an AI powered escape room game that tests players problem solving skills
- GUI made using JavaFX, utilising **SceneBuilder**
- Coded in Java utilising **OpenAI API** as the Game Master

## Technical Skills

Languages: Java, Python, Javascript, Typescript, C, SQL

Developer Tools: Git, GitHub

Technologies/Frameworks: Java Spring, REST, gRPC, Bazel, MongoDB, Firebase, Docker, Kubernetes, Pytest, Mockito

Cloud Platforms: Google Cloud Platform