# **Hugh Avery**

# Software Engineer







#### **PERSONAL PROFILE**

I am a passionate and driven computer science student seeking an exciting role as a full-stack developer. With a strong enthusiasm for web applications I actively pursue personal projects outside of university, including the development of my personal website. My goal is to contribute to a dynamic team and work on challenging projects that allow me to utilise my expertise in software development. I am highly motivated to continuously learn and grow, and I am excited to be part of an environment that offers opportunities for career advancement.

### **Professional Experience**

#### OrbViz, Christchurch | IT Services and IT Consulting

Summer of 2022/2023 (400 hours as a Software Engineer Intern)

During my internship at OrbViz, I primarily worked on constructing a data detection algorithm and integrating my solution into their backend. I was able to quickly familiarise myself with their codebase and had to teach myself a range of new technologies and concepts, such as Django, TypeScript, Postman, Vue, Docker, and Cypress. In addition to my technical work, I also had the opportunity to attend meetings with investors and the CEO, where I gained valuable insights into the business side of the software company.

# Downers construction, New plymouth | Road marking/Traffic control Summer of 2022/2021

Helping paint the roads of Taranaki and controlling and monitoring traffic. This job involved me following closely behind A paint truck directing traffic using hazard lights and a signal board and communicating with my team on the traffic status.

#### Software Skills

#### React.js

I have a strong command over React.js, having utilised it in the development of both my personal website and a film review platform

#### **TypeScript**

I first used TypeScript at my summer internship at OrbViz where i had the task to send over optimised data to the backend and dynamically re render the responses in interactive dropdowns. Since then i have built two frontend web applications and a Restful API using Typescript.

#### Python

Python was the first language I learnt and I have used it in six of my papers at university. I have programmed many programs with python including a client-server application, a pattern matching algorithm, a custom compiler and used python to develop my data automation algorithm at OrbViz.

#### Java

I have a good grasp of OO-programing and OO-designs and am currently using java in one of my group projects. Last year I built a monster fighter game in Java, this project served as a platform for me to implement advanced OOP concepts, such as inheritance, polymorphism, and encapsulation.

- > C, Bootstrap, Tailwind, Django, SQL, Postman, CSS, HTML, Spring Boot, Express, npm, Node.js
- > Experience using Github/Gitlab for version control and continuous integration
- > Databases, Query optimisation, Oracle, mySql, Relational data models.
- > Understanding of many core Algorithms and optimisation principles.
- > Knowledge in Tcp and Udp and other internet protocols, Packet processing, Socket programming.
- > Software development processes, Agile-based methods(Scrum, Kanban), TDD
- > Cucumber testing, Mocking, Playwright, Integration tests, E2E testing
- > Have been introduced to Docker, Vue, Cypress during my internship

## **Project Experience**

- > Currently in a software team of 8 following the Scrum framework to build a social media app for athletes and sports enthusiasts
- > Built a RESTful API for a Film festival website using typescript and tested with postman and developed the frontend using React and Bootstrap, creating user-friendly interfaces and responsive design.
- > Built a data Hierarchy detection algorithm that helped automate the setup process at Orbviz
- > Experienced in working with Agile-based methodologies such as Scrum/Kanban both at university and during my internship
- > Programmed a low level embedded system in C
- > Have wireframed more than 20 webpages using figma
- > Conducted live demonstrations of my application, effectively showcasing its features and functionality

## **Teamwork & Leadership**

- > I successfully collaborated with developers at Orbviz and in university projects, demonstrating my ability to work effectively in a team. In my current team project, I taught my entire team how to implement Bootstrap in our application, a technology I learnt over summer.
- > I am a member of both the Taranaki symphony orchestra and Taranaki youth orchestra and was the leader/concertmaster of the youth orchestra in 2019, as the leader i had the responsibility of tuning the whole orchestra, setting bowings, musical interpretation and acting as a liaison between the conductor and the musicians
- > In my last year of high school I was a part of the hapu support team, where I was a mentor and role model for junior students

> My experience playing team sports has taught me the importance of building strong relationships and fostering a cohesive team environment in order to achieve success

#### **Education**

#### **University of Canterbury**

2021 - Present

Studying towards a Bachelor of Science majoring in Computer Science

#### **Other Information**

- > Actively involved in sports, having competed at a national level in Road Cycling and Tennis
- > I am a member of the University's Engineering society and Computer science club
- > Multicultural background, Proficient in English and Chinese languages
- > GitHub: hughavery

#### References

> Vincent (Developer on current Team Project)

Mobile: +64273202935

Email: vincent@d-exclaimation.me

LinkedIn: Vincent

> Ronan Avery (Brother and tutor @ university of Canterbury)

Mobile: +64226493876 Email ronantavery@gmail.com

LinkedIn: Ronan

More references available on request