# Findlay Royds

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## Personal Statement

I have always had a passion for software development, from competing nationally with a team of four in a robotics competition to doing self-employed freelance software work for clients in high school, and now studying computer science at the University of Canterbury, as well as completing an internship at Tait Communications. My interests lie in learning new technologies, designing fun and useful applications, and generally improving my programming skills. I'm looking for an internship where I can gain industry experience and acquire new knowledge about developing software.

## Education

Third year

#### University of Canterbury

inira year:			
Computer Graphics	A+	Artificial Intelligence	-
Big Data Computing and Systems	A+	Operating Systems	-
Web Computing Architectures	А	Mobile Application Design and Development	-
Internet Technology and Engineering	A+	Science, Society and Me	-
Second Year			
Software Engineering I	A+	Relational Database Systems	А
Formal Languages and Compilers	A-	Computer Networks and the Internet	A+
Algorithms	А	Software Engineering Team Project	B+
Discrete Mathematics and Cryptography	А	Computer Systems	A+
First year:			
Intro to Programming for Engineers	A+	Intro to Computer Science	A+
Astrophysics	B+	Discrete Mathematics	A-
Engineering Mathematics 1A	A-	Engineering Mathematics 1B	A-
Foundations of Engineering	B+	Engineering Physics A	B+

## Work Experience

#### Tait Communications Junior Design Engineer Internship

- Summer project creating an automated web UI testing suite with Python3 and Playwright
- Attended stand-ups and completed a presentation of my project

#### University of Canterbury Security

- Working for a short period each year in a small team to print student ID cards

#### New World

- Working with other staff members to track stock, package food, and help customers

#### Freelance Software Development

- Connecting with clients and completing requests during high school

## **Technical Skills**

- Languages: Python, Kotlin, Java, Lua, JavaScript, C and C++
- Technologies / Frameworks: React, Android, JavaFX, Swing, Playwright, OpenGL
- Experience with both Windows and Unix operating systems, Docker and Automated testing

## **School Projects**

#### Crash Data Analysis Application

- Worked in a team of seven people, Weekly presentations, automated acceptance testing
- JavaFX with OpenStreetMap + NZ crash statistics for graphical heatmap display

#### Basketball Team Management Game

- University project developed in team of two, collaboration and version control with Git
- Java desktop application built with Swing, full unit test coverage

#### Full Stack Petitions Website

- University web computing project: database, API, and react app.

#### **Ray Traced Renderer**

- University computer graphics project: reflection, refraction, Menger fractal

#### Online Wheel of Fortune (Highschool)

- Multiplayer website with 3D graphics and python backend deployed to serverless hosting

## **Personal Projects**

#### Minecraft Inspired Game (current project of ~1.5 years)

- Originally C++ but refactored into Kotlin. 3D Graphics with OpenGL
- Client-server multiplayer using sockets, parallelised world generation

#### Egg Hunt Game

- Primary School Highschool project written with Lua in Roblox
- Persistent data storage, networking, 50,000 plays, 110 peak concurrent users

### Achievements

2<sup>nd</sup> place in New Zealand in the 2022 ANZAC programming competition

## **Volunteer Experience**

- University of Canterbury Student Volunteer Army events
- Tree plantings with the Cashmere Student Volunteer Army, Helped Weet-Bix kids' triathlon

## **Personal Skills**

#### Initiative

- Set up and advertised freelance software service in high school

#### Communication

- Connected with clients, worked with the testing team at Tait
- Presented project to colleagues and weekly reports to other class members

## Hobbies

- Bouldering, skiing, and tramping with friends
- Programming personal projects