# Jake van Keulen

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## ABOUT

Software Engineering student at the University of Canterbury, graduating Nov 2025. Passionate about problem solving, algorithms, and learning anything new. Seeking a 2023/24 summer internship to apply my skills, learn from industry professionals, and contribute to real-world projects.

## EDUCATION

**University of Canterbury** — Feb 2022 - Nov 2025
Bachelor of Software Engineering with Honours - GPA: 8.07/9

**University of Canterbury STAR Program** — Feb 2021 - Nov 2021
MATH199 Advancing in Mathematical Sciences (Completed in High School) - GPA: 9/9

## TECHNICAL SKILLS

**Languages:** C++, C, Python, Java, JavaScript/TypeScript
**Web Technologies:** React, Flask, Next.js, HTML/CSS
**Other Libraries/Frameworks:** Numpy, JavaFX, JUnit, Gradle
**Miscellaneous:** Git, Linux, Bash, MS Access DB

## PROJECTS

**Basketball Team Management Game** — Java, Swing, JUnit, JavaDoc
- GUI desktop application built with Java Swing
- Developed in a team, using Git and GitHub for version control and collaboration
- Tested code with JUnit5, reaching 99% game logic test coverage
- Created documentation with Javadoc, covering 100% of codebase

**Orienteering Map Generator** — JavaScript, HTML Canvas, Perlin Noise
- Web application built with JavaScript and HTML Canvas
- Used Perlin Noise to generate randomized terrain, creating unique and realistic maps every time

## COMPETITIVE PROGRAMMING (C++/PYTHON)

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| **NZ Programming Contest** | 1st tertiary intermediate team for 2023; 3rd overall |
| **ANZAC Programming Contests** | 1st in New Zealand in ANZAC 4 2022 |
| **ICPC** | Qualified for 2022 South Pacific Finals |
| **Leetcode Contests** | Ranked in top 0.37% of over 400,000 competitors worldwide as of August 2023 |

## EXPERIENCE

**Devanner - MoreStaff** — Nov 2022 - Mar 2023
- Operated in small teams to efficiently remove hundreds of tons of product from shipping containers
- Worked for several companies, including Move Logistics, Independent Fisheries, and Bascik Transport

**Physics Tutor - Self Employed** — Feb 2021 - Dec 2021
- Planned and conducted weekly tutoring sessions for an NCEA Level 2 Physics Student

**Digital Technologies Prefect - Cashmere High School** — Feb 2021 - Dec 2021
- Supervised computer labs, assisting students with programming and database development schoolwork

## OTHER ACHIEVEMENTS

**Discover Citadel Program - Citadel Securities** — Aug 2023
- Selected as one of 45 students from Asia/Pacific for this event at the Citadel Securities Sydney office
- Engaged in talks, panels, and contests focused on software engineering, trading, and quantitative research

**ATCL Clarinet Performance Diploma - Trinity College** — 2020
- Equivalent in standard to the first year recital of an undergraduate degree

## INTERESTS

When I'm not thinking about software, I like to get outside for an adventure, whether it be tramping, rock climbing, or skiing. My favourite activity is bouldering, particularly at Kura Tawhiti/Castle Hill. I enjoy the mental and physical challenge, as well as the social aspect of spending time with friends and attending UC Climbing Club events.