

Jake van Keulen

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ABOUT

Software Engineering student at the University of Canterbury, graduating Nov 2025. Passionate about fast-paced problem solving, algorithms, and learning anything new. Recently interned as a Software Engineer at Seequent, now looking at 2024/25 summer internship opportunities.

EDUCATION

University of Canterbury Bachelor of Software Engineering with Honours - GPA: 7.83/9	Feb 2022 - Nov 2025
University of Canterbury STAR Program MATH199 Advancing in Mathematical Sciences (Completed in High School) - GPA: 9/9	Feb 2021 - Nov 2021

EXPERIENCE

Software Engineer Intern - Seequent <ul style="list-style-type: none">Placed in an engineering team for 10 weeks, working with Python, using Scrum-based workflowsWorked on a back end service to store, analyze and manipulate subsurface models of minesUsed various spatial data structures to model and report on mineral reserves	Nov 2023 - Feb 2024
Computer Science Tutor - University of Canterbury <ul style="list-style-type: none">Running lab help sessions for COSC121, introduction to computer programming	Feb 2024 - Ongoing
Physics Tutor - Self Employed <ul style="list-style-type: none">Planned and conducted weekly tutoring sessions for an NCEA Level 2 Physics Student	Feb 2021 - Dec 2021

SKILLS

Languages: C/C++, Python, Java, JavaScript/TypeScript, SQL, HTML/CSS
Technologies/Frameworks: Numpy, Git, Linux, ReactJS,

COMPETITIVE PROGRAMMING (C++)

NZ Programming Contest	1st tertiary intermediate team for 2023; 3rd overall
ICPC	Qualified for 2022 South Pacific Finals
LeetCode Contests	Ranked in top 0.5% of all 500,000+ competitors worldwide (leetcode.com/jakevk)

PROJECTS

Basketball Team Management Game <ul style="list-style-type: none">GUI desktop application built with Java SwingDeveloped in a team, using Git and GitHub for version control and collaborationTested code with JUnit5, reaching 99% game logic test coverage	Java, Swing, JUnit, JavaDoc
Orienteering Map Generator <ul style="list-style-type: none">Web application built with JavaScript and HTML CanvasUsed Perlin Noise to generate randomized terrain, creating unique and realistic maps every time	JavaScript, HTML Canvas, Perlin Noise

OTHER ACHIEVEMENTS

Discover Citadel Program - Citadel Securities <ul style="list-style-type: none">Selected as one of 45 students from Asia/Pacific for this event at the Citadel Securities Sydney officeEngaged in talks, panels, and contests focused on software engineering, trading, and quantitative research	Aug 2023
ATCL Clarinet Performance Diploma - Trinity College <ul style="list-style-type: none">Equivalent in standard to the first year recital of an undergraduate degree	2020

INTERESTS

When I'm not thinking about software, I like to get outside for an adventure. My favourite activity is rock climbing, particularly at Kura Tawhiti/Castle Hill, a huge local boulder field. I'm currently a committee member for the UC Climbing Club, which involves helping to run trips and teaching new members how to climb and belay safely.