# Zachary Anderson

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## **Education**

# **Bachelor of Mathematical and Computer Sciences** The University of Adelaide

February 2023 - November 2025

7.0/7.0 GPA including 99% in Programming (Matlab & C) and 100% in Mathematics IB

# **South Australian Certificate of Education** Saint Ignatius' College, Adelaide

January 2010 - November 2022

- Saint Ignatius' College Class of 2022 Highest ATAR of 99.80 (Selection Rank 99.95)
- SACE Merits in Chemistry (20/20), Physics (19.9/20), and Specialist Mathematics (19.9/20)

## **Work Experience**

### Academic Tutor | Sole Trader

January 2023 - Present

- Providing tutoring services primarily for computer science and SACE Stage 2 sciences/mathematics
- Managing business activities including finding customers and tracking finances/paperwork

## **Projects**

Sudoku December 2023 - Present

- Created sudoku web app with three difficulty modes using Vue
- Implemented sudoku validation, completion, and board generation algorithms in TypeScript
- Improved performance to be consistently under 1 second for all features

#### **Minesweeper with Save States**

September 2023 - October 2023

- Collaborated in a team of three people to recreate classic Minesweeper with various board configuration options and save states using SFML with C++
- Developed the object-oriented structure and implemented entity, tile, mine, and number classes

#### **University of Adelaide Timetable Generator**

January 2023 - February 2023

- Created web app to generate permitted class configurations for any selected range of subjects
- Implemented responsive user interface with HTML, CSS, and JavaScript
- Leveraged JavaScript for extensive input string parsing and scalable subject clash logic

# **Custom Spotify Shuffle Feature**

October 2021 - December 2021

- Created web app to allow for custom shuffle parameters and weightings
- Re-engineered initial Python program to a JavaScript web app with an interactive HTML/CSS interface
- Implemented asynchronous web API calls and custom shuffle logic based on user input

# **Community Involvement**

•	Active member of Competitive Programming Club and placed in the top 10% in recent competitions	(2024)
•	1 of 5 SA students selected for the ANU-AAMT National Mathematics Summer School	(2022)
•	Assisted EdTechSA Conference presentation about teaching mobile app development in Lua	(2019)

# **Awards**

•	City of West Torrens Mendelson Scholarship	(2023)
•	University of Adelaide Principals' Scholarship	(2023)
•	Way College Prize and Medal for Highest Achievement in SA/NT Stage 2 Chemistry	(2022)
•	10 Senior Year Speech Day Awards including Australian Defence Force Future Innovators Award	(2022)

## Languages & Technologies

C++, C, Python, JavaScript, HTML, CSS, Vue, Typescript