

Billy Vile

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EDUCATION

The University of Adelaide

Bachelor of Computer Science (ADVANCED)

Adelaide, South Australia/Australia

Expected December 2024

- **Clubs:** Computer Science, Math, Engineering Society
- **Awards & Honors:** Highest Scoring Male (ATAR), Academic Awards, Top of Subject, 3rd Highest ATAR
- **ATAR:** 96.45

WORK EXPERIENCE / EXTRACURRICULAR

ROBOGALS

Coding Educator, Marketing Manager, Schools Manager

Adelaide, South Australia/Australia

April 2022 – April 2023

- Educated students on coding robots to do tasks and play games
- Fixed code issues for the robots, and implemented changes in the physical design of the robot
- Constructed engaging portfolios to support our *Sponsorships and Partnerships Managers* when requesting for grants
- Managed all ROBOGALS social media profiles, including LinkedIn, Facebook, and Instagram

Tutor (School and University)

Math and Science

Adelaide, South Australia/Australia

February 2020 – Present

- Every student tutored saw an increase of a minimum of one letter grade
- Tutored full classes in Math and Biology

PROJECTS

Sudoku Generator and Solver Visualiser

April 2023

- A website that can both automatically and manually generate a classic 9x9 sudoku. A visualisation of the sudoku being solved by backtracking can be seen by the user after pressing a single button. The user can adjust the difficulty of the generated sudoku, the speed of the solving visualization, and can clear the sudoku to input their own values. (JavaScript, CSS, HTML)

Trading Bot

January 2023

- The bot uses a dynamic approach to cut losers short and let winners run, by exploiting a volatility adjusted lookback length. The implementation incorporated a simple breakout strategy that dynamically changes its lookback length and uses a stop-loss to protect against potential losses. Implemented backtrack testing between the dates (1,1,2020 – 1,1,2023). (Python)

Mandelbrot Set Generator and Visualiser

January 2023

- Using SFML library, colours red, blue, and green, the program generates an image of the Mandelbrot set using algorithms to calculate the value of each pixel. The program combined mathematical concepts, optimization, and computer graphics to create a standard visualisation of the Mandelbrot set. (C++)

Texas, U.S.A, Capital Punishment Data Analysis

July 2022

- (High-Distinction): Using Pandas and the Texas Department of Criminal Justice to collect and clean data to be constructed into graphs for analysis on the characteristics of the people. The aim was to try and find if a common trend or a stereotypical person existed. The information was presented, and a report was written on the findings. (Python)

Object-Oriented Survivor Game

April 2022

- (High-Distinction): A classic Object-Oriented Programming computer game where the user must attack various oncoming enemies or run to survive. It is a single player game built with all the common features of Object-Oriented Programming. (C++)

Skills

- **Technical Skills:** C++, C, Python, JavaScript
- **Soft Skills:** Communication, Problem Solving, Perseverance, Creativity, Personable

ADDITIONAL

Ravi's Study Program: 13 Week Intensive Programming Bootcamp.

Finance Coursework: Business Finance.