

Billy Vile

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PROFESSIONAL SUMMARY

A confident and results-driven Computer Science (Advanced) student specialising in artificial intelligence. Boasting a diverse portfolio spanning deep learning, algorithmic trading, and full-stack development. Deeply committed to continuous learning in software engineering and finance. Proven ability to educate, lead, and collaborate with diverse teams for project success.

EDUCATION

The University of Adelaide
Bachelor of Computer Science (ADVANCED)

Adelaide, South Australia/Australia
Expected May 2025

PROJECTS

Deep Learning-Powered Autonomous Robotic Car Python | TensorFlow | **In Progress**

- Engineering an autonomous robotic car powered by Raspberry Pi and TensorFlow using machine learning and deep learning techniques. Integrated computer vision to deliver real-time responses to diverse road conditions, maximising safe navigation

Dijkstra's and Best-First-Search Pathfinding Visualiser Python | **December 2023**

- Constructed a visualization of Dijkstra's pathfinding algorithm. Optimised speed of finding path by implementing Best-First search, at the cost of accuracy. Used pygame create a grid and show the shortest path between two points, updating cells with different colours (visited, unvisited). User can randomly or manually create a set of walls, and place start and end nodes

YouTube Skeleton TypeScript | Next.js | Express.js | Firebase | Google Cloud Platform | **December 2023**


- Developed a scalable cloud-based video sharing platform with functionalities akin to YouTube, leveraging Google Cloud Services and Firebase for efficient, real-time data management and video processing. Users can sign-in, upload, alter p quality

Algorithmic Trading Bot Python, QuantConnect | **January 2023** 

- A trading bot with a dynamic approach to maximise profits and limit losses. Incorporated a stop-loss feature and a breakout strategy that dynamically changes its lookback length. Validated via back testing over three years, and increased profits by 33%

School Club Web Application JavaScript | HTML | CSS | MySQL | **June 2023** 

- (High-Distinction): Developed a comprehensive SQL-based web portal for managing school clubs. Incorporated features such as user registration, role assignments, event/post creation and management, notifications, and personalized media feeds

Object-Oriented Survivor Game C++ | **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

WORK EXPERIENCE & EXTRACURRICULAR

Deloitte | The Academy by Deloitte / Incoming Consulting Intern **May 2023 - Current**
Attend Deloitte x Adelaide Uni community events; take part in work-integrated learning opportunities and internships (consulting)

Competitive Programming Club x RSP | Organiser, Participant **February 2024 - Current**
Overall Position: 1st; Organised competition structure with teams of 3 from Adelaide Uni, Hong Kong, Singapore, and RSP

Ravi's Study Program (RSP) | Graduated **November 2023 - Current**
Gave/received over 25 mock interviews, completed ~200 Leetcode questions, engaged in seminars, broke earliest graduation record

Robogals | Coding Educator, Marketing Manager, Schools Manager **April 2022 – April 2023**
Promoted STEM careers to girls in schools. Connected with over 25 new schools. Increased social-media engagement by 115%

University Clubs | Ranging from Manager to Member **April 2022 - Current**
Computer Science, Math, Engineering Society, Society for Quantitative Analysis and Data, WISTEMS (Women in STEM)

TECHNICAL SKILLS

Back End | C++, Python, C, Java, R, MySQL **Front End** | TypeScript, HTML, CSS **Developer Tools** | Docker, Git, SVN, npm

ADDITIONAL

Awards / Courses | ATAR: 96.45, Academic Excellence, Multivariable Calculus, Linear Algebra, Algorithms & Data Structures