**ADDRESS** CITY, STATE POST CODE

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# aun Gunawardane

Associate Member – Australia Computer Society | Student Member – Engineers Australia

#### The University of Adelaide | FEB 2020 - JUN 2024

Bachelor of Electrical and Electronic Engineering (Honours) - Computer Engineering Major

#### Experience

#### Australian Submarine Corporation | FEB 2022 - SEP 2022 | Adelaide SA

#### Software Engineering Intern

Designing a 2D modelling interface which utilises drag-and-drop mechanics, plotting tools, and dimension/measurement calculation. This application would be used by Engineers at ASC to design orthographic drawings to aid in the construction and development the Collins-class submarine. Tools: C# .NET Framework.

#### Australian Signals Directorate | NOV 2021 - FEB 2022 | Canberra ACT

#### Cybersecurity Intern

Investigated communication protocols used in Industrial Control Systems and built a distributed network protocol (DNP3) environment which simulated an electricity network. Packet capture analysis was used to assess data flow. The contributed tools and platform were used as an education platform to enable insight into cybersecurity in ICS environments. Tools: Rust, Wireshark, Power System Generator.

## Australian Government Digital Emerging Talent Programs | JAN 2021 - DEC 2021 | Canberra ACT

#### Australian Defence Force Cyber Gap Program

Completed various online cybersecurity assessments. Rank 20/300 in Capture the Flag competition. Mentoring provided by Digital Transformation Agency personnel.

#### Competitions

9th Place Nationally - International Collegiate Programming Contest (Division 2) | JAN 2022

25th Place Nationally - International Collegiate Programming Contest (Division 2) | JAN 2021

#### 3rd Place Nationally - SUBS in Schools Technology Challenge | JUL 2016 - JUN 2017 | Perth WA

Hosted by: Re-Engineering Australia and the Australian Submarine Corporation (ASC)

CAD designing and Manufacturing of a Remotely Operated Underwater Vehicle using primarily Arduino technology and Autodesk Inventor.

# Projects

#### Rubik's Cube Render | JUN 2022 - JUL 2022

WebGL

Created an intuitive, functional, web-based 3D Rubik's Cube render using matrix mathematics and WebGL. The Cube can be smoothly rotated in 3D space and twisted on all sides through mouse events. This project is the preceding step before implementing a Rubik's Cube solver.

#### Brick Breaker | DEC 2020 - JAN 2021

Java

Created a platformer game where the player must destroy a wall of bricks by deflecting a ball off a slider. The game includes a speed change each timethe ball collides with the slider. This was done utilising 2D graphics and object-oriented programming.

#### Text-Based Chess Game | AUG 2020 - SEP 2020

Designed a text-based chess game through object-oriented programming. The game includes valid chess piece rules and a checking system.

# Programs and Leaderships

#### Student Mentor - Ravi's Study Program (RSP) | NOV 2021 - PRESENT

RSP is an intensive bootcamp which trains students to land internships at big tech companies with an 88% success rate. After successful results in last year's program, I was invited as a student mentor. My role involved grading, assigning work, giving feedback and teaching students programming and interviewing techniques.

### Google Developer Student Club Lead for University of Adelaide | JUN 2021 - PRESENT

President of Open Source Collective - Digital student hub for University of Adelaide | JUN 2021 - PRESENT

Treasurer of the Electrical and Electronic Engineering Society of Adelaide University | OCT 2021 – JUN 2022

Cyber@ANZ Program - Social Engineering and Digital Investigation | FEB 2021

#### National Youth Science Forum Year 12 Program (NYSF) | JAN 2019 | Brisbane QLD

Awarded a scholarship by NYSF for my acceptance into the program and received a sponsorship by the Adelaide rotary district.

#### **Languages and Technologies**

Languages: Proficient: Java, C++. Technologies: Wireshark, Autodesk Inventor Adobe After Effects

Experienced: MATLAB, C#, Rust, JavaScript