# **Anthony Carbone**

## Resume



# **Executive Summary**

Third year Aerospace Engineering and Computer Science student with an avid interest in Australia's developing space industry. Multi-disciplinary problem-solver with exposure and experience in a diverse range of technologies through projects and studies. Experience in software development, robotics, academic research, and piloting gliders. Wishes to expand to space-based technologies and space operations.

### Education

#### Feb. 2019 - 2024

### Aerospace Engineering (Hons) / Computer Science

UNSW, Sydney

- 83 Weighted Average Mark
- Dean's Honours List, UNSW Engineering School (2019)

#### Jul. 2014 – Nov. 2018 Western Australian Certificate of Education

Trinity College, East Perth

- 99.60 ATAR
- Head of Year 12 Award
- Top student in WA for Aviation ATAR

### Technical Skills

#### Programming:

- Python
- C
- Git/GitHub/GitLab
- Linux
- Jekyll (static site generator)

#### Engineering:

- SolidWorks
- Fusion 360
- ANSYS Workbench
- MATLAB
- LaTeX

### Experience

#### 17 - 18 Jul. 2021

#### **UNSW CSESoc Hackathon Beginner's Prize**

- Designed, built, and pitched a novel scholarship search and crowdfunding service to aid scholarship-hunting students to industry representative.
- Awarded \$150 cash prize by a Prospa representative for extraordinary beginner achievement.

#### Nov. 2020 - Feb. 2021 Summer Research Intern

International Centre for Radio Astronomy Research - UWA, Perth

- Investigated applying the JPEG2000 based webjpip.js JavaScript library to remotely viewing very large image radio astronomy spectral data cubes.
- Presented recommendations to the Australian SKA organisation (AusSRC) for development of webjpip.js as a viable product for future SKA use.

# May. 2019 - Sep. 2019 Warman Design and Build, UNSW Qualifier - UNSW, Sydney

- Worked in a team of 6 to qualify to represent UNSW at the global competition in parallel with studies.
- Designed and built powerful servo and motor subsystems, and an effective power distribution system with two 3s LiPO batteries.

Feb. 2019 - Mar. 2019	<ul> <li>Autonomous Vehicle Team Lead – UNSW, Sydney</li> <li>Lead a team of six first-year students to win the courses' track competition.</li> <li>Programmed the autonomous robot in Arduino (C/C++).</li> <li>Applied small motors, laser-cut gears, and servos.</li> <li>Designed and built an effective power distribution system with a 3s LiPO battery and Veroboard.</li> </ul>
2018 – 2019	<ul> <li>Most Advanced Beginner Pilot Award – Gliding Club of WA</li> <li>Awarded Most Advanced Ab-Inition Pilot by the Committee.</li> <li>Flew first solo flight at age 17 with only 18 flights of experience (typically takes 30+ flights).</li> </ul>
Sep. 2017	<ul> <li>International Astronautical Congress Student Attendee – Adelaide</li> <li>Attended the annual Congress in Adelaide where over 6000 participants from the sector communicate developments in academia and industry.</li> </ul>
Jul. 2020 – Present	<ul> <li>Private Tutor – Self-employed, Remote/In-person</li> <li>Tutored over 15 High-School/University students in Maths, Physics, and Chemistry.</li> <li>Maintain positive client relationships, experience, and service.</li> <li>Manage invoices and accounts for students.</li> </ul>
May 2019	<ul> <li>Soldering Workshop Leader</li> <li>UNSW School of Electrical Engineering &amp; Telecommunications, Sydney</li> <li>Ran soldering workshops for 50 High School, University, and International students.</li> </ul>
Jul. 2016	<ul> <li>United Space School – Houston, TX, USA</li> <li>Awarded a scholarship by Trinity College to attend the two week-long program along with 40 other international students.</li> <li>Worked in the Mars Transit team to plan a theoretical mission to Mars in association with experience NASA staff.</li> <li>One of five participants awarded a flown Texas flag in recognition of extraordinary achievement.</li> </ul>
Volunteer	
2020	<ul> <li>President - UNSW Hall, Sydney</li> <li>Led the House Committee in delivering social, sports, and cultural events for the 180 residents.</li> <li>Worked with the Dean and Deputy Deans of the College to create a positive, safe, and inclusive resident experience.</li> </ul>
2021, 2020, 2019	Third Year Rep., Secretary, First Year Rep. UNSW Mechanical Engineering Students Society
2020 – Present	Health, Safety, and Environment Committee Undergraduate Representative UNSW School of Mechanical & Manufacturing Engineering
Jul. 2017 – Present	<ul> <li>Volunteer Leader – Edmund Rice Camps WA/NSW</li> <li>Deliver five day camps for disadvantaged children in teams of 25+ volunteers.</li> </ul>

# \* References available upon request