Anthony Carbone



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 - Present

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

- Prototyped and pitched a scholarship search and crowdfunding service to enhance the connection between scholarships and eligible students.
- Awarded \$150 cash prize by a Prospa judge 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 Autonomous Vehicle Team Lead – UNSW, Sydney

- Lead a team of six first-year students to win the courses' track competition.
- Programmed the autonomous robot in Arduino (C/C++).
- Applied small motors, laser-cut gears, and servos.
- Designed and built an effective power distribution system with a 3s LiPO battery and Veroboard.

2018 - 2019

Most Advanced Beginner Pilot Award – Gliding Club of WA

- Awarded Most Advanced Ab-Inition Pilot by the Committee.
- Flew first solo flight at age 17 with only 18 flights of experience (typically takes 30+ flights).

Sep. 2017

International Astronautical Congress Student Attendee – Adelaide

• Attended the annual Congress in Adelaide where over 6000 participants from the sector communicate developments in academia and industry.

Jul. 2016

United Space School – Houston, TX, USA

- Awarded a scholarship by Trinity College to attend the two week-long program along with 40 other international students.
- Worked in the Mars Transit team to plan a theoretical mission to Mars in association with experience NASA staff.
- One of five participants awarded a flown Texas flag in recognition of extraordinary achievement.

Additional Experience

Jul. 2020 – Present

Private Tutor – Self-employed, Remote/In-person

- Tutored over 15 High-School/University students in Maths, Physics, and Chemistry.
- Maintain positive client relationships, experience, and service.
- Manage invoices and accounts for students.

Jul. 2019 – Present

Customer Service – UNSW Fitness & Aquatic Centre, Sydney

- Serve patrons with membership and facility enquiries.
- Achieve membership sales targets.
- Work in the team of 15 staff to operate the large centre safely.

May 2019

Soldering Workshop Leader

UNSW School of Electrical Engineering & Telecommunications, Sydney

• Ran soldering workshops for 50 High School, University, and International students.

Volunteer

2020	President - UNSW Hall, Sydney
	 Led the House Committee in delivering social, sports, and cultural events for the 180 residents.
	 Worked with the Dean and Deputy Deans of the College to create a positive, safe, and inclusive resident experience.
2021, 2020, 2019	Third Year Rep., Secretary, First Year Rep. UNSW Mechanical Engineering Students Society
2020 – Present	HSE Committee Undergraduate Representative
	UNSW School of Mechanical & Manufacturing Engineering
	 Advise the Health, Safety, and Environment committee on undergraduate student matters.
Jul. 2017 – Present	Volunteer Leader – Edmund Rice Camps WA/NSW
	 Deliver five day camps for disadvantaged children in teams of 25+ volunteers.

^{*} References available upon request