

SAM MAGAREY

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INTERN

I am currently studying for a Bachelor of Engineering (Honours) in Aerospace combined with a Bachelor of Science (Mathematics). I have excellent problem solving and communication skills. As a lead of the University of Sydney Rocketry Team, I have responsibility for flight dynamics, simulation, and optimisation. I am excited by the opportunity to strengthen my technical skills and problem-solving skills through this internship, and gain experience at an industry leading company.

Hard Skills:

- Python
- Latex
- MATLAB
- C++
- R
- CAD
- Excel
- Data analytics

Soft Skills:

- Exceptional communication and interpersonal skills
- Strategic problem-solver
- Collaborative and innovative
- High ethics and integrity

Education

- Bachelor of Engineering (Honours) Aerospace/Bachelor of Science (Mathematics) – University of Sydney CURRENT
 - Dean's List of Excellence in Academic Performance 2023
 - Weighted Average Mark – High Distinction 89.1
- Higher School Certificate – Saint Ignatius' College, Riverview
 - ATAR 99.85
 - Proxime Saint Ignatius' College Riverview
 - HSC All Rounders List
 - Richard Herlihy Prize for Strength of Character and Involvement

Work Experience History:

University of Sydney

RESEARCH INTERN

2025

Overview

- Recipient of the Engineering Vacation Research Internship Winter Program Scholarship
- Research project on "Enhanced Motion Mixing for Eight360 Flight Simulator".
- Involves accurate modelling of flight dynamics and motion cueing algorithms for implementation on a flight simulator.

Key Highlights:

- Aerospace engineering and mathematics student
- Strong record of academic achievement
- Member of University of Sydney Rocketry Team
- Strategic, innovative & collaborative
- Excellent problem solver

MODELLING AND CONTROLS LEAD - USYD ROCKETRY TEAM

2024 – CURRENT

Overview

- Lead of the Modelling and Control Department
- “Pardalote” achieved 1st place overall at the International Rocket Engineering Competition (IREC)
- Responsible for development of hybrid rocket motor, and custom aerodynamic simulations for trajectory optimisation
- Currently involved in leading the developing an airbrake system

CASUAL ACADEMIC

2025 – CURRENT

Overview

- Tutor for Engineering Dynamics (AMME2500). The unit develops skills in approximating the dynamic behaviour of real systems in engineering applications and an appreciation and understanding of the effect of approximations in the development and design of systems in real-world engineering tasks
- Tutor for Analysis of Aerospace Engineering Data (AERO2710). The unit is aimed at providing an overview on conducting experiments, data acquisition and data analysis, thus expanding and providing further foundation on the faculty vision of large digital data analysis
- Curriculum support for Space Engineering 1 and 2 (AERO2705 & AERO3760), and Flight Mechanics 1 (AERO3560). Involved in developing teaching materials, solutions and marking criteria, advising on assessments and supporting the teaching staff.

The Lakes Golf Club

OUTSIDE SERVICES ATTENDANT

2022 – CURRENT

Overview

- One of Australia’s premier private golf clubs
- Provide high level customer service experience dealing with members and guests in a professional and friendly manner
- Real time problem solving when members/guests encounter issues

Extra-Curricular:

- University of Sydney
 - USYD Rocketry Club
 - Represented University of Sydney at University Games in Golf
 - SUEUA
 - MUGS
- Golf
 - Member of The Royal Sydney Golf Club
 - Member Killara Golf Club
- Football
 - St Michael’s Football Club
- Cricket
 - Cammeray Cricket Club

References:

Contact details available on request