James Condos

| James.condos@outlook.com | [My Portfolio and Projects!](#) | Melbourne Australia |
| 0435 461 561 |

EDUCATION

University of Melbourne   **Melbourne, VIC**
Masters of Mechatronics Engineering   *2023 - Expected Dec 2025*

- Control Algorithms, Robotics Systems, AI, Machine Learning, Electrical, Software, Quantum Computing

Bachelor of Science – Major in Mathematical Physics   *2019 - 2022*

- H2B – Second Class Honours – Advanced Maths (Abstract Algebra, Differential Forms), Quantum Physics
-

Diploma in Computer Science   *2019 - 2022*

- H1 – First Class Honours – Projects in Java, C, Python, Machine Learning, Artificial Intelligence

Caulfield Grammar School   *2013 - 2018*

- Certificate of Academic Achievement for Mathematics
- Silver Award of Excellence

EXPERIENCE

Melbourne Space Program   **Melbourne, VIC**
CO – LEAD for ACRUX – 2 Project   *Jan 2022 - Current*

- A non-for-profit independent organization, where study, engineering and discussion is heavily focused on ambitions space projects
- Currently working on the ADCS (Attitude Determination and Control Systems) team for ACRUX – 2, where we are aiming for a 2024 launch of a satellite into low earth orbit (Overall payload (Aim of Satellite) has yet to be decided)
- My responsibilities include:
    - Deriving the relevant equations of motion and modelling the satellite dynamics in MATLAB and Python
    - Researching control algorithms and implementing them through a range of sensors and actuators. One example is the B-Dot algorithm, which uses a magnetometer and magnetorquer for de-tumbling
    - Writing code in C++ to implement the ADCS finite state machine, interface with the sensors and actuators, reaction wheels, sun sensors and communicate with the On-Board Computer (OBC)

GamePlan Coaching Tutoring   **Melbourne, VIC**
Tutor   *Aug 2022 – Current*

- Tutoring, advising, coaching, and guiding high school students in the VCE curriculum for STEM subjects
- Tutoring university students for subjects in physics, math's and computer science

Caulfield Grammar School   **Melbourne, VIC**
Math's Teaching Assistant   *Feb 2023 – Current*

- Assisting teachers in lesson planning, and marking schoolwork
- Teaching weak and advanced students in mathematics for years 7 – 10 at Caulfield Grammar School
- Planning lessons, and adopting different teaching strategies to best assist students

APA Group   **Melbourne, VIC**

Student Intern in CICD and DevOps (Software Development)   *Jan 2022 – March 2022*
(Continuous Integration and Continuous Deployment)

- Working in a collaborative team setting, working continuously with Java and MySQL implementation and development, where my team's goal was to bridge the gap between development and operations

- Working with Team City, Octopus Deploy, Bitbucket and Git

- Contributed to a work environment that fosters innovation, teamwork and high achievement

University of Melbourne   **Melbourne, VIC**

Summer Research project for the School of Physics   *Dec 2021 – March 2022*

- An independent research project for the school of physics under an academic, with focus and study on 'Quantum Machine Learning'

- Discussed the importance of computation theory for Quantum Computers (PDA's, DFA's etc) and discussed different ways to improve efficiency of Qubit collapsing states, and how this can be utilized in data mining and statistical analysis

FMG Engineering incorporating Burns Hamilton   **Melbourne, VIC**

Student Intern   *Nov 2018 – Dec 2018*

- A civil engineering company, where I performed professional duties, such as being taken on site and assessing structural flaws in the engineering of buildings

- Created professional slides/presentations and had discussions with clients on site

- Learnt about the science and theory behind civil engineering and contributed to a professional work environment that fosters innovation, teamwork and constant improvement

LEADERSHIP AND INVOLVMENT

University of Melbourne

- University of Melbourne Peer Mentor Leader   *February 2022 - Current*
- Goalkeeper for University of Melbourne Soccer Club   *Jan 2020 – Current*
- UMSU Host program – Touring new students through the University   *February 2021*

Professional Development Course – "ALTO Climate Challenge"   *Jan 2020 – Dec 2020*

- Implemented a real-world solution to reduce society's carbon footprint

- Discussed a strategy of allowing companies to work from home by developing a dashboard for staff to be used in home, developed in java

- Contacting sponsors and professionals in the industry, relevant companies for advice on our scope, researched by discussing with behavioral specialists

SKILLS AND DEVELOPMENT

Technical

- Proficient Applications (Excel, Word, PowerPoint, Outlook, Adobe, Photoshop, Visual Studio, TeamCity, Octopus Deploy, Atlassian Products (Confluence, BitBucket, Jira), CAD (Computer Aided Design)
- Programming languages
    - Fluent in: Python, Object Oriented Python, C, Xamarin (C++ Based), Java
    - Competent in: Haskell, MySQL, CSS, HTML, MATLAB, Node.js, Ruby
    - [My Portfolio and Projects!](#)

Referees: Helen Malliaris, Senior Project Manager at Seqirus, 0414 515 703