

James Condos

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

EDUCATION

University of Melbourne

Melbourne, VIC

Masters of Electrical Engineering

2023 - Expected Dec 2025

- Control Algorithms, Embedded Systems, Photonics, Optimization, Quantum Computing, Signal Theory

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

- H2A – First Class Honours – Projects in Java, C, Python, Machine Learning, Artificial Intelligence

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 ambitious space projects
- Currently working on the ADCS (Attitude Determination and Control Systems) team for ACRUX – 2, where we are aiming for a 2025 July launch of a satellite into low earth orbit
- My responsibilities include:
 - Assisting in the writing of our LQR (Linear-Quadratic-Regulator) control algorithm, which will focus on how the satellite moves, with our reaction wheels.
 - 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

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

University of Melbourne

Melbourne, VIC

Physics 1 (PHYC10003) Lab Demonstrator

March 2023 – Current

- Running and supervising Physics labs for classes of 15-20 students, teaching relevant Physics
- Includes marking written labs for experiments, and collaborating with peers

APA Group

Student Intern in CICD and DevOps (Software Development)
(Continuous Integration and Continuous Deployment)

Melbourne, VIC

Jan 2022 – March 2022

- 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

Summer Research project for the School of Physics

Melbourne, VIC

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

Student Intern

Melbourne, VIC

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), Quartus,
- Programming languages
 - Fluent in: Python, Object Oriented Python, C, Xamarin (C++ Based), Java, Verilog, MATLAB, Verilog
 - Competent in: Haskell, MySQL, CSS, HTML, Node.js, Ruby, Quartus
 - [My Portfolio and Projects!](#)
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- **Referees:** Helen Malliaris, Senior Project Manager at Seqirus, 0414 515 703