

Olivia Walters

Citizenship: Australian; DOB: 16th April 2003

Email:
oliviahwalters@gmail.com

Please contact me for further
information including transcripts.

Education and Grading

Curtin University (Bentley, WA, Australia)

Currently completing a Doctor of Philosophy (PhD) in Physics at the Curtin Institute of Radio Astronomy (CIRA). Began in March 2025. Working with Professor Cathryn Trott as primary supervisor.

Australian National University (Acton, ACT, Australia)

Bachelor of Science (Adv.) (Hon.) with First Class Honours. Majoring in Astronomy; Minor in Computer Science. Began in February 2021. Graduation was on December 10th, 2024.

Final GPA: 6.625 (/7)

Completed with First Class Honours

The Scots College (Bellevue Hill, NSW, Australia) High School. Started February 2015. Graduated October 2020.

2020 Higher School Certificate
Australian Tertiary Admission Rank (ATAR): 98.35 (/100)

Discovery Bay International School (Hong Kong SAR) Primary School.

Technical Experience

Computer Languages (In order of experience)

- Python, Javascript, Typescript, C#, Java, Haskell, Mathematica, MATLAB, Visual Basic, ARM Assembly, C, R, Lua

Languages

- English (First Language), Spanish (Second Language, Learner)

Operating Systems

- Linux (Ubuntu, Mint, WSL), MacOS, Windows 7/10/11

Academic Research History

All research/project history is unpublished as of writing.

PhD Thesis

(Currently undertaking) conducted at the Curtin Institute of Radio Astronomy (CIRA). Supervised by Prof. Cathryn Trott and Prof. Yuxiang Qin (Australian National University).

Exploring the Early Universe with Radio Telescopes (Current) - a project focused on Radio Astronomy related to the instrumentation of the Murchison Wide-field Array (MWA), high-redshift Radio Astronomy, and simulations of the early-universe or instrumentation such as OSKAR and DRAGONS.

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Honours Thesis

Conducted at the Research School of Astronomy and Astrophysics (RSAA). Supervised by Craig Anderson and Prof. Naomi McClure-Griffiths.

Magnetic Fields in High Velocity Clouds and Rotation Measure Foreground Removal Techniques (2024) - a report analysing the application of signal processing and interpolation techniques on high-density rotation measure grids surrounding High Velocity Clouds (HVCs). In addition, using new POSSUM rotation measure data to investigate the presence of the magnetic draping phenomena surrounding HVCs.

ASTR3005 Astrophysics Research Project

The DEBASS Survey Two Years in: Measuring the Quality and Utility of Low-Redshift Type Ia Supernova Samples (2023) - supervised by Brad Tucker at the RSAA. A report focused on analysing the quality, quantity, and utility of type Ia supernova transients observed by the DEBASS survey; using computational algorithms as a point of comparison.

HSC Science Extension Research Project

Examining methods used to measure the refractive and group indexes of soda-lime glass (2020) - supervised by A/Prof. Boris Kuhlmeiy at the School of Physics, University of Sydney. A scientific investigation aiming to compare methods of measuring the refractive index of soda-lime glass; utilising both geometrical and interferometric methods.

HSC Software Design and Development Major Project

"Reactit" Web Application (2020) - an independent software engineering major project focused on developing a web application that can calculate products of chemical reactions.

Preliminary Research Studies Project

How is Privatisation Changing the Space Industry? A Comparative Study (2019) - independently-organised. A science history paper focusing on the history of space exploration, satellite servicing, and rocket transport, and its relationship to government and private institutions.

Work Experience

Curtin University (Bentley, WA)

University Academic Tutor - Faculty of Science and Engineering (2025)

Higher Degree by Research - Curtin Institute of Radio Astronomy (2025-Present)

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Australian National University (Acton, ACT)

University Academic Tutor - School of Computing (2024)

Outreach Guide - RSAA (2024)

Tutor Lim (Australia-Wide)

High School Academic Tutor (2023-2024)

Agile Digital Engineering (Braddon, ACT)

Junior Software Developer (2022-2023)

Nextgen Distribution (North Sydney, NSW)

Intern Software Developer (2020)

Zaks by Castelo Concepts (Hong Kong SAR)

Waitress (2017-18)

Volunteering/Service Work

Curtin Student Guild

Ordinary Committee Member - Curtin Physics Club (2025-2026)

Ordinary Committee Member - Curtin Tabletop (2025-2026)

Vice President of the Postgraduate Research Committee (2025)

Independent Work

Pet Sitting and House Care (2024)

Australian Greens - Political Campaigning

Polling Station Campaigning - 2025 WA State Election, 2025 Australian Federal Election

Calling and Data Entry for the WA Greens (2025)

Calling and Data Entry for the ACT Greens (2024)

ANU Research School of Astronomy and Astrophysics

Non-HDR Committee Executive (2024)

Course Representative for: Galaxies (ASTR4006); Observational Techniques (ASTR4011); Astrophysical Processes II (ASTR4021); Astrophysical Computing (ASTR4004). (2024)

ANU School of Computing

Course Representative for: Foundations of Computing (COMP1600); Structured Programming (Advanced) (COMP1140). (2021)

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The Scots College

Captain of the Audio-Visual Solutions department (2020)

Member of the Audio-Visual Solutions department (2016-2020)

Miscellaneous Charity Work - Salvation Army, Kangaroo Valley Art Festival (2017-2019)

Notable Non-Degree Awards

National/State Awards

NSW Premier's Award for All-Round Excellence in the 2020 HSC given for exceptional academic results.

Gold Duke of Edinburgh Award (2020)

University-Level Awards

Certificate of Appreciation for Course Representative (2021) two separate awards for COMP1140 and COMP1600.

School-Level Awards

Graeme Clark Award for Research and Innovation in the Sciences (2020) awarded to students at The Scots College for outstanding scientific research.

The College Prize for Software Design and Development (2020) given to Y12 students who came 1st place within the School's Senior cohort.

The Daniel Mendoza Memorial Award (2020) awarded to students at The Scots College for leadership in Audio Visual.

The College Prize for Research Studies (2019) given to students who came 1st place in the Research Studies Program.

The Guy K. White Memorial Prize for Y11 Physics (2019) given to students who came 1st place within the School's cohort.
