# Ollie Pye

## MPhil Candidate

	Education
2021 – Current	Master of Philosophy (Astrophysics), Queensland University of Technology. Investigating galaxy evolution by way of SED analysis
2016 – 2019	Bachelor of Science (Physics), Queensland University of Technology. GPA 6.7 on a 7-point scale
2009 – 2015	<b>Queensland Certificate of Education (QCE)</b> , <i>Ipswich Grammar School</i> . OP1
	Academic Achievements
2020	VRES, Queensland University of Technology
2019	Dunlap Summer School, University of Toronto
2019	Summer Research Scholar, Monash University
2018	Dean's List Award, Queensland University of Technology
2017	Short Term Exchange, University of Cambridge
2016	QUT Dean's Scholar and Vice-Chancellor Scholarship recipient
2015	Ipswich Grammar School Captain
2015	Australian Defence Force Long Tan Youth Leadership and Teamwork Award
2015	National Youth Science Forum (NYSF)
	Outreach
2021	Presenter - Queensland Virtual STEM Academy
2021	Presenter - Redeemer Lutheran College
2018, 2019, 2021	Presenter - QUT STEM Camp
	Conferences
2021	Astronomical Society of Australia Annual Scientific Meeting
2021	ANITA Summer School and Workshop
	Sporting Achievements
2021	VFL Listed Umpire
2019	QAFL Grand Final Umpire

2018 QWAFL Grand Final Umpire

## **Employment**

2021 - Current **Sessional Academic**, Queensland University of Technology.

- o PVB220 Cosmology
- o PVB101 Physics of the Very Large Prac Demonstrator
- SEB104 Grand Challenges in Science (Space Exploration)
- EGB113 Energy in Engineering Systems Prac Demonstrator

### 2019 - 2021**Data Analyst**, Queensland Curriculum and Assessment Authority (QCAA).

Worked in the data team to deliver the new ATAR system in QLD

- Developed the code base to calculate Year 12 scores for the new ATAR system using Rasch Analysis
- Developed and deployed an R-Shiny app for the state wide standards setting exercise
- Investigated the late birthday effect using historical NAPLAN data

#### 2017 - 2019**Senior STEM Ambassador**, Queensland University of Technology.

As a STEM ambassador I work in a team that presents STEM related workshops to high school students with the aim of developing their interest in the STEM field

- Engage students when presenting challenging topics
- Ensure focus is maintained during the workshop
- Communicate effectively with colleagues to ensure the students are provided with the best learning environment possible

## 2017 - Current **AFLQ Field Umpire**, AFL Queensland.

I work with a team of umpires to ensure the safety and fair play of AFL competitions in Queensland

- Clear communication skills to ensure the game runs smoothly
- Concentrate under demanding conditions (both physically and mentally)
- Maintain responsibility for the care of the players during matches

#### 2019 **Research Intern**, Monash University.

Analysed the simulated life cycle of giant helium stars using python

- Used Object Orientated programming to analyse data
- Drew meaningful conclusions from extensive data sets
- Visualised data for suitable audiences

## 2017 - 2018**Education Development**, Maths Thrills.

At Maths Thrills I worked externally, developing maths worksheets and summaries of mathematical ideas.

- Develop explanations of complex mathematical concepts to be easily understood by students
- Develop worksheets to consolidate students understanding of mathematical ideas
- o Communicate effectively with colleagues to ensure tasks are completed on time
- o Edit entire text book in word to ensure uniform fonts, styles and dimensions were adhered to

#### 2017 - 2018Participation Assistant, Queensland University of Technology.

I worked with a visually impaired student during classes to ensure that they are included and participate in a positive learning environment

- Effectively communicate what is visually presented in class
- Ensure the student felt included and contributed to the class
- Precise articulation when communicating

## Volunteer Placements

## 2019 President, QUT Physics Society.

The QUT Physics Society is a QUT student society with a focus on developing physics and non physics students professionally

- Delegate tasks to the executive team
- Oversee the organisation of events
- Meet with department heads to organise funding
  - Trivia nights
  - Programming workshops
  - Astronomy nights

## 2016 – 2019 Member, Girls in Engineering Making Statements (GEMS).

GEMS is a QUT student society with a focus of empowering women in engineering

- Organise fundraisers
- Assembled birthing kits for developing nations in Africa
- o 2017 Mentor Program Director
  - Elected to direct the mentor program in 2017
  - Matched mentors and mentees with a focus on the pairs having common interests
  - Organise guest speaker events