

# DEREN TEO

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## EDUCATION

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### University of Queensland

Feb 2019 - Dec 2023

Bachelor of Engineering (Honours), Mechatronic Engineering; and  
Bachelor of Computer Science, Machine Learning

GPA : 6.9 / 7

## SKILLS

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### Programming Languages

Python, Java, C, C++, MATLAB

### Technical Skills

Linux, ROS, CAD software, Altium Designer

## EXPERIENCE

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### Burl Aerospace

Dec 2023 - Present

*Drone Engineer*

- Ground up mechanical design of a novel, small-scale UAV, rapidly prototyped via 3D printing
- PCB design, simultaneously for electrical transmission and as a major structural feature
- Custom embedded software development on top of open source PX4 flight control software

### IEEE UQ Student Branch

Jul 2021 - Nov 2023

*Vice-Chair → Chair*

- Liaised with academics and industry professionals to organise on-campus events for students
- Built collaborative relationships with other UQ societies to promote IEEE to a diverse audience
- Participated in Qld. Section committee meetings to align goals with the broader IEEE body

### Synengco

Nov 2019 - Nov 2023

*Student Software Engineer*

- Built and tested Bayesian methods for supply chain modelling and optimisation
- Visualised big data from monitoring of industrial assets
- Developed software aligned with the Open Industrial Interoperability Ecosystem (OIIE)
- Collaborated with major power generation clients to optimise their code base

## **Universal Field Robots**

Nov 2022 - Feb 2023

### *Robotics Engineer Intern*

- Programmed ROS2 software for communication with hardware using CAN specification
- Tested systems under development in simulation and on real hardware
- Integrated sensors (quadrature, IMU, LiDAR, radar and GPS) using EKF for sensor fusion
- Liaised with clients in mining automation to identify project direction and requirements

## **HONORS & AWARDS**

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### *2019 - 2023*

- Dean's Commendation for Academic Excellence — All semesters (10 awards in total)

### *2023*

- Les Dobson Memorial Prize for Best Systems & Software Engineering Project (Honours thesis)
- IEEE Queensland Section Student Thesis Prize — General Category
- Best Project in Avionics & UAV (Honours thesis)

### *2022*

- Mechatronic System Design Project II (METR4810) trophy

### *2021*

- Shortlisted for L3 Harris Scholarship in Electrical Engineering
- Shortlisted for Rio Tinto Excellence Scholarships and Graduate Program

### *2020*

- Hawken Scholar 2020 (top 5% of undergraduate Engineering cohort)
- Prentice Scholar 2020 (top 5% of undergraduate Computer Science cohort)
- Shortlisted for Anglo American Metallurgical Coal Engineering Scholarship

### *2019*

- Recipient of the Information Communications Technology (ICT) Excellence Scholarship