# **DEREN TEO**

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#### **EDUCATION**

## University of Queensland

Feb 2019 - Dec 2023

GPA: 6.9 / 7

Bachelor of Engineering (Honours), Mechatronic Engineering; and

Bachelor of Computer Science, Machine Learning

### **SKILLS**

**Programming Languages** 

Python, Java, C, C++, MATLAB

**Technical Skills** 

Linux, ROS, CAD software, Altium Designer

#### **EXPERIENCE**

**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 o 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**

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