

# CYRIL THOMAS

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## CURRENT EDUCATION

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### BE (Honours) & Master of Engineering, Electrical Engineering

Expected graduation: Dec. 2022

The University of Queensland | Brisbane, Australia

Relevant courses: Digital Systems Design; Embedded Systems Design/Interfacing; Control Engineering; Signals/Systems

## WORK EXPERIENCE

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### Research Assistant

Feb. 2021 – Present

The University of Queensland | Brisbane, Australia

- Working with Dr. Stephen Snow to research the effect of poor indoor air quality (IAQ) on cognitive and academic performance in Queensland high schools
- Assisting with quantitative data analysis and data collection using a \$100 monitoring kit designed with Raspberry Pi and sensors

### Academic Tutor

July 2019 – Present

The University of Queensland | Brisbane, Australia

- Tutoring PHYS1002 (electromagnetism/optics/modern physics) part-time to first year engineering and science students
- Responsible for delivering labs/marking, and fostering a positive learning environment for students

### Student Consultant

Jan. 2020 – Feb. 2020

Practera | Brisbane, Australia

- Worked with an NGO (Palliative Care Queensland) to help them align with the UN Sustainability Goal
- Researched and identified key initiatives to improve their socio-economic & environmental impact by 15%

### Product Testing and Development Intern

June 2019 – July 2019

Verdant Telemetry | Kochi, India

- Tested active/passive antenna & radomes specialising in airborne application
- Optimised antenna designs – Conducted low frequency (<800MHz) testing outdoors, and high frequency testing inside a noise chamber
- Validated maximum antenna gains, voltage standing wave ratios, radiation patterns and axial ratios
- Exposed to blade/loop/beacon antennas and production processes
- Tested and verified GPSes

### Summer Research Intern

Nov. 2018 – Feb. 2019

The University of Queensland | Brisbane, Australia

- Analysed and visualized how comments made to online newspapers affect the democratic discourse in Maldives
- Built a fully-fledged website utilizing HTML, CSS and JS, and visualised over 8000 data points

### Information Technology Intern

May 2017 – Aug. 2017

Pivotal Software | Toronto, Canada

- Supported an IT enterprise with over 2000 employees in the Toronto office and other worldwide locations
- Managed an IT asset life-cycle project to upgrade over 150 laptops and desktops for employees
- Deployed custom images to manage inventory; Authored documentation and manuals for the internal wiki

## TECHNICAL SKILLS

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**Languages/Kernels** C, C++, Python, SQL, JavaScript, HTML, CSS, Assembly, VHDL, FreeRTOS, Linux

**Hardware** STM32 & AVR microcontrollers, PCB Design, Soldering (Surface Mount & Through Hole)

**Tools** Unix Shell, Vim, Git, SVN, VS Code, Bash, Zsh

**Other** PowerWorld Simulator, MATLAB & Simulink, Altium Designer, Mathematica, LTspice

## SELF PROJECTS

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### Reactive Music Visualiser

November 2020

- Built a LED visualiser using an RGB strip and Arduino to react real-time to music based on the pitch and volume
- Utilises a Wi-Fi module to interact with Amazon Alexa

### The Ultimate Game Controller

July 2020

- Designed a custom input device to be used with video games
- Sends data over a USB interface using the HID protocol and supports any system that uses a standard USB controller

## LEADERSHIP / COMMUNITY

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### UQ Volunteer and Mentor

Feb. 2021 – Present

- Contribute to the wider UQ Community by helping run Welcome Week events, and other events each semester
- Encourage and empower students to connect with other students, share ideas and opinions and get feedback
- Help local & international students to transition to university life by sharing tips, advice, and personal experiences
- Provide mentees with guidance and support throughout the semester with weekly check-ins and meetings

### UQ Engineering Ambassador

July 2020 – Present

- Represent UQ and support prospective engineering students at school visits, career fairs, and events such as Open Day and Expos

### Student Staff Partnership Project – Course Redesign of MATH1052

March 2021 – July 2021

- Collaborated with academic staff to improve the teaching and learning experience offered in MATH1052
- Co-created and reviewed resources such as lectures to improve flexibility and to deliver a high quality, active learning experience that meet the needs of both on-campus and online students

### Conversation Volunteer

Jan. 2021 – March 2021

- Supported Institute of Continuing & TESOL Education students to practice English speaking and listening
- Facilitated opportunities to engage with the UQ community in an encouraging and supportive environment

## CERTIFICATION / ACHIEVEMENTS

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- Certificate of Completion, 2021, [Nature-Based Solutions for Disaster and Climate Resilience](#) offered by the UN, Partnership for Environment and Disaster Risk Reduction (PEDRR), SDG Academy and EdX
- Certificate of Completion, 2020, [Global Virtual Student Experience: Services](#) offered by Schneider Electric
- Certificate of Completion, 2020, [UQ Idea Hub Summer Unlimited](#) offered by UQ Ventures
- First place, 2019, Leadership and Mentoring challenge, The University of Queensland
- President's Scholarship of Distinction, 2016, University of Waterloo
- Third place, 2014, Problem Solving Assessment, Central Board of Secondary Education
- Shodan (Black belt), 2013, Shito-Ryu Kuwait and Kuwait Karate Federation

## EXTRACURRICULARS

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- Member of Leaders @ EAIT (2021 – Present)
- Member of Robogals Brisbane (2019 – Present)
- Member of UQ Engineering Undergraduate Society (2018 – Present)
- Member of UQ Electrically Based Engineering Student Society (2018 – Present)
- Member of UQ Engineers Without Borders Australia (2018 – Present)