

Daniel Horsnell

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CAREER PROFILE

Robotics Software Engineer Intern

2022 Nov- 2024 Jan

- Worked predominantly as a full-stack developer.
- Got experience in frontend, android, backend and firmware development.
- Worked on hardware projects such as UGV development.

Recently Graduated from a Bachelor of Engineering (Mechatronic)

2020 Feb- 2023 Dec

- Participated and worked well in a team throughout many group projects, competitions, and research projects.
- Participated in a university project to develop and AI driven recycling robot.

EDUCATION

Bachelor of Engineering (Mechatronic)

2020 Feb- 2023 Dec

University of New South Wales

- Distinction Average, WAM of 83.8

Higher School Certificate

2018

Oxford Falls Grammar School

- Achieved Dux of the grade
- First in the grade in Music 2, Mathematics Advanced, Mathematics Ext 1 and chemistry.

RELEVANT PROJECTS

R² Robo Re-cycle - Thesis

February 2023 – December 2023

School of Mechanical and Manufacturing engineering UNSW

- My thesis was in computer vision
- Specifically, I created a program that generates robotic instructions from a disassembly video
- This project aims to stream line the process of automated e-waste recycling.

R² Robo Re-cycle

February 2022 - December 2022

School of Mechanical and Manufacturing engineering UNSW

- This project aims to create an AI driven robot to disassemble batteries to aid the recycling process.
- For this project I was assigned to the creation of a digital twin.
- Specifically, I oversee the digital mock up made in unity and workflow.

ADDITIONAL EXPERIENCE

Robotics Software Engineer Intern

November 2022 - January 2024

Advanced Navigation

- At this job I work 3 days a week as a casual employee during university and full time in the holidays.
- At this job, my responsibilities have included:
 - The design and fabrication of unmanned ground vehicles
 - Front end development
 - Backend development
 - Firmware development
 - Android development

Merivale

- Originally started as a barback at The Newport
- Transferred to bar backing at The Establishment
- Transferred to Cellar for the building where I take care of stock for The Establishment main bars, Mr Wong's, Hemisphere, Sushi E, Palmer and Co and the five function venues.
- Generally, I work 20-30 hrs during term time and more in the holidays.

EXTRACURRICULAR ACTIVITIES

Sports and Hobbies

- Surfing
- Bouldering and rock climbing
- Free diving/snorkelling
- Boating and fishing
- Playing trumpet and piano

TECHNICAL SKILLS

- Basic programming experience in the languages: Verilog, Maple, VHDL, RAPID, Java, Kotlin, Lua
- Strong skills in the programming languages: C++, C#, C, Golang, typescript, python, MATLAB
- Strong CAD and CAM skills using SolidWorks
- Excellent skills with version control software's including GitHub and GitLab
- Experience using Unity interface
- Experience using ABB Robot Studio
- Strong Understanding and experience of Ardupilot and PX4
- Strong skills and experience in ROS 2
- Experience with Gazebo.
- Excellent skills in ReactJS
- Strong experience in Linux
- Experience with raspberry pi (in openwrt, Raspbian, ubuntu)
- Experience with Google Cloud Protocol
- Experience with Android Development

SOFT SKILLS

- Strong communication skills.
- Ability to work well under pressure.
- Great teamwork skills.
- Good public speaking skills.

PROFESSIONAL MEMBERSHIPS

Engineers Australia Student Member
Engineers Australia

March 2020 - Now

Referees

Peter Bassett – Manager @ Advanced Navigation:

email: peter.bassett@advancednavigation.com