Ronald Wee

Penultimate Student at NUS

Aspiring mechatronics/robotics engineer

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Singapore

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EDUCATION

Mechanical Engineering (2nd major in Innovation and Design)

National University of Singapore

08/2019 - Present *GPA: 4.25/5*

Relevant Courses

- Feedback Control Systems
- Robot Mechanics and Control
- Automation
- Introduction to Machine Learning

Entrepreneurial Education

NUS Overseas Colleges

05/2021 - 07/2021

Courses

- R&D intern for an Indonesian Real Estate Start-up company

WORK EXPERIENCE

Robotics Engineer Intern

Weston Robot Pte Ltd

12/2021 - Present *Singapore*

Robotics Start-up company

Achievements/Tasks

- Spearheaded conceptual design for cleaning robots using Fusion360
- Produced 3D design and 3D prints of casing for Printed Circuit Boards(PCBs)
- Assisted with soldering and testing of PCBs
- Assisted with testing of Autonomous Ground Robots using ROS

Mechatronics Design Engineer

Flexlink Engineers Pte Ltd

05/2020 - 07/2020 *Singapore*

Electrical and electronics engineering company

Achievements/Tasks

- Produced 2D mechanical design and architecture site plan using AutoCAD
- Produced control wiring diagram, electrical schematics, PLC ladder diagram and flowcharts

Engineering Intern

Flexlink Engineers Pte Ltd

03/2019 - 07/2019 *Singapore*

Electrical and electronics engineering company

Achievements/Tasks

- Spearheaded projects for panel building, from design phase to assembly phase, utilizing AutoCAD and electrical wiring knowledge
- Involved in a major engineering projects from companies such as SMRT, SAF, from procurement of sub-components to production and testing
- Published an official document regarding outsourcing of project to overseas contractors for the company, greatly facilitating the process and reducing time lag

SKILLS

Computer-aided Design | C | C++ | Python | Microcontroller Programming | Electrical Wiring | Circuit Design | ROS | Machine Learning | Web Development

PERSONAL PROJECTS

Navigation team member at NUS Mars Rover Team (08/2021 - Present)

- Researched on navigation stack
- Connected sensors to ROS network and visualising using Rviz

Team Jetbot at Advanced Robotics Centre (NUS) (05/2021 - 12/2021)

- Worked on a robot built on NVIDIA Jetson Nano, training it in obstacle avoidance and line following

Design Project at NUS (01/2021 - 12/2021)

- Developing an automated rain screen for HDB estates
- Utilized SolidWorks to generate design concept
- Data collection using weather sensors and Raspberry Pi
- Developing a deep neural network to predict rainwater penetration

TI RSLK Mechkit (06/2021 - 07/2021)

- Wired up sensors and actuators for a robot
- Programmed MSP432 microcontroller on a robot for teleoperation and obstacle avoidance

ORGANIZATIONS

Advanced Robotics Centre (NUS) (05/2021 - Present)

Student helper in Computer Vision Team

NUS Entrepreneurship Society (08/2020 - 05/2021)

Education Liaisons Subdivision

CERTIFICATES

Deep Learning Specialisation

The Mechatronics Revolution: Fundamentals and Core Concept

CS50x Introduction to Computer Science

ROS for Beginners: Basics, Motion, and OpenCV

LANGUAGES

English

Native or Bilingual Proficiency

Chinese

Native or Bilingual Proficiency