Ronald Wee

Final Year Student at NUS

Aspiring Robotics Software/AI Engineer

ronald.wee@u.nus.edu

97878992

Singapore

ronaldwee.github.io/

linkedin.com/in/ronald-wee-73057a1a2

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

WORK EXPERIENCE

Robotics Software Engineering Intern

Solustar Pte Ltd

06/2022 - 08/2022 *Singapore*

Robotics Company

Achievements/Tasks

- Gazebo simulation of Disinfecting Robot using URDF
- Tested SLAM packages such as hector_slam and gmapping
- Software development in Python
- Performed wheel calibration to improve AMCL
- Assisted in analysing odometry data in Octave

Robotics Engineer Intern

Weston Robot Pte Ltd

12/2021 - 05/2022 *Singapore*

Robotics Start-up company

Achievements/Tasks

- Spearheaded conceptual design for cleaning robots using Fusion360
- Assisted with PCB casing design, soldering and testing
- Testing of Autonomous Ground Robots using ROS and Rviz

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

SKILLS

Computer-aided Design | C | C++ | Python

Microcontroller Programming | Electrical Wiring

ROS | Machine Learning | Web Development

Git | PLC | PyTorch

PERSONAL PROJECTS

Final Year Project (07/2022 - Present)

- Unseen Object Instance Segmentation in PyTorch

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
- Trained machine learning models 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

CERTIFICATES

Deep Learning Specialisation

CS50x Introduction to Computer Science

ROS for Beginners: Basics, Motion, and OpenCV

The Mechatronics Revolution: Fundamentals and Core Concept

LANGUAGES

English

Native or Bilingual Proficiency

Chinese

Native or Bilingual Proficiency