

Dan Huy NGUYEN

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EDUCATION

University of New South Wales

Feb 2018 – Dec 2023

Bachelor of Engineering (Hons) (Mechatronics) / Bachelor of Science (Computer Science)

- Cumulative WAM of 81.758.
- Notable courses: DESN2000(99), ENGG3600 (94), MATH2019 (93).

WORK EXPERIENCE

UNSW

Casual Academic

Sep 2021 – Current

- Lab demonstrator for first-year to post-graduate engineering courses (DESN1000, MTRN2500, MTRN3100, MTRN4110, COMP9024) with an average satisfaction rate of 95%.
- Course planner for robotics courses (MTRN2500, MTRN3100, MTRN4231) involving curriculum development and creation of teaching content for labs and assessments.

PROJECT EXPERIENCE

Sumobots

May 2022 – July 2022

- Organised team to deliver 1st place winning sumobot in MTRNSoc x CREATE Sumobots Competition Advanced Stream.
- Participated in concept generation of solution and requirements.
- Soldered and assembled electrical system.
- Implemented robot software architecture and control loop.

UNSW Competitive Robotics Group

Sep 2021 – June 2022

- Created ROS control, description, and gazebo packages for end effector and combined UAV/end effector robots.
- Modelled CAD artefacts with URDF/Xacro/SDF for Gazebo simulation.

Offworld Robotics

Project Manager

Dec 2020 – June 2022

- Supervision of a leadership team to conduct operations with respect to project management plan and systems engineering management plan.
- Centralisation and refinement of processes, structures, documentation, and workflows onto GitLab to improve organisational efficiency and standardise quality.

Mechanical & Manufacturing Student Engineer

Jan 2020 – Dec 2020

- Designed ladder-frame chassis, bogie suspension, and limited-slip differential under a hybrid agile-waterfall design process for rapid iteration and 3D-printing manufacturing.
- Simulated and optimised parts in various loading conditions with FEA.
- Invented unique differential as proof-of-concept of kinematic mechanisms for integration with bogie suspension.

COMPETITION EXPERIENCE

Accenture Technology Bootcamp

Feb 2022

- Developed a proof-of-concept "GitLab Team Management" application in Django/Python connecting to GitLab API to enhance people management capabilities.

WIESoc x IBM Hackathon

Oct 2020

- Developed prize-winning "COVID Safe Link" website in Flask/Python connecting to Google Maps API and NSW Open Data Platforms to plan safe travel through populated areas and public transport.