

# Jerry (Yuanhao) Zhang

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## Education

### University of New South Wales, Sydney, Australia

Jan 2023 – Dec 2026

*Bachelor of Engineering (Mechanical Engineering) (Honours)*

WAM: 80.6

*Certified SolidWorks Professional (Mechanical Design) - Professional Level*

Jan 2026

### Georgia Institute of Technology, Atlanta, USA (Exchange program)

Jan 2025 – May 2025

*Relevant Courses: Dynamics, Machine Design, Heat Transfer, IC Engines*

## Skills

**Technical Skills:** SolidWorks, FUSION360 (CAD/CAM), ANSYS (Mechanical/Fluent/CFX), 3D Printing, CNC

**Programming Skills:** Python, MATLAB, C, HTML, ArduinoIDE, STM32CubeIDE

**Lingual Skills:** English, Mandarin, Japanese (JLPT N2)

## Projects

### Oscillating Wave Column - DESN2000

Jan 2024 - Apr 2024

- Cooperated on a conceptual oscillating wave column which converts wave energy to electrical energy, powering a light bulb that sends navigational light signals to nearby ships
- Designed and presented an electronic circuit linking the generator, battery and light bulb. Consistent technical interactions with team members from different engineering disciplines to warrant correct operations.
- Administered Microsoft Project Management to prepare GANTT Charts to assist in scheduling and project activities such as assignments, arranging meetings to individual team member deadlines.

### Rescue Robot - DESN1000

Jan 2023 - Apr 2023

- Cooperated on developing a rescue robot which could navigate set environments to identify and carry "victims"
- Designed, animated and presented the robot body using FUSION360 CAD. Laser cut acrylic sheets to attach supports and assemble winch and shovel system. Sourced and assembled tank treads which allowed for stationary 360 degree rotation. Designed and 3D printed custom motor mounts to secure motors

### CNC Machining Project - MMAN1130

Oct 2024 - Dec 2024

- Modeled unique steel parts used as an injection mould for bespoke plastic coins by closely following required CAD instructions. Made the required CAM pathways to ensure smooth surface finishes and a transition fit mates.

### Power Meter - Personal

Oct 2024 – Dec 2024

- Designed and prototyped a strain-gauge-based power meter to measure bicycle crank torque and calculate mechanical power output. Researched and sourced required parts, helped with soldering components and assembled mechanical prototype. Worked and collaborated with peers from different disciplines

## Work Experience

### Chemist Warehouse

Nov 2022 – Feb 2023

*Pharmacy Assistant*

Sydney, Australia

- Assisted store management in preparing stock, maintaining inventory and medication whilst providing frequent communication with customers and coworkers in a fast-paced environment. Followed company protocol in proper staff manners and health and safety to maintain the corporate image of the company

### Bikeology

Oct 2023 - Jan 2024

*Bicycle Mechanic*

ARC, UNSW

- Routine maintenance and repairs on bicycles. Including shifter tuning, brake adjustments, drivetrain servicing, tire replacements and safety checks. Communicated and cooperated with other volunteers in a team setting. Received an UNSW volunteering AHEGS Accreditation