

ANNA WEI

✉ atywei@edu.uwaterloo.ca

SKILLS

SolidWorks experience through rocket payload design for the Waterloo Rocketry Design Team.

Familiarity with **GD&T**, **technical drawings**, and **FEA** on SolidWorks.

Refined **AutoCAD** and **rapid prototyping** skills through development of **laser-cut** projects.

Experience using **mill** and **lathe** to create a back-up steering system for a concrete toboggan competition.

Architectural design and surface modelling in **Google SketchUp**.

Bilingual in **English** and **Mandarin Chinese**.

EDUCATION

University of Waterloo

Candidate for Bachelor of Applied Science

September 2018 – June 2023

Mechanical Engineering, Honours Co-op

Relevant Coursework

Structure and Property of Materials – ME 115

Introduction to Mechanical Engineering – ME 101

Electrical Circuits and Instrumentations – GENE 123

ACHIEVEMENTS

Drafting and Design Level II

Academic Achievement Award 2016

Designed house using architectural standards on and created a fully rendered, animated walkthrough with AutoCAD and SketchUp.

Constructed intricate, furnished cardboard model of the Sketchup house project by hand.

EXPERIENCE

Payload Structure Designer, Waterloo Rocketry Design Team

September 2018 – Present

- Optimized structure of CubeSat ferro-fluid experimental module while collaborating with other teammates to ensure design coherence with other parts of the payload.
- Designed and created brace component of CubeSat with SolidWorks by following design constraints and criteria to house an experimental module.
- Reduced rendering time of SolidWorks rocket payload model by creating assortment of simpler screws and utilizing design table of configurations to allow easy access to alternate screw sizes.

Junior Instructor, Geering Up UBC Engineering & Science for Kids

July 2018 – August 2018

- Aided instruction of children aged 7-14 by promoting science and engineering topics through hands-on workshops while working with products and programs such as Adafruit and Scratch.

PROJECTS

Edge-Lit Acrylic Arduino Clock

January 2019 – Present

- Inspired by the aesthetic of nixie tubes, this project will feature laser-engraved acrylic pieces that display numbers as an Arduino-controlled PCB of multiple LED's is shined through the edges of acrylic.

Laser-Cut Mechanical Gear Car

November 2018 - December 2018

- Utilized AutoCAD to create CAD drawings and laser-cut prototypes to ensure proper fit of gears and wheel axes.
- Finished wooden toy car product featured a figurine which was mobilized by the turning of a camshaft through gear movement.

ACTIVITIES & INTERESTS

McMaster Designathon 2019

January 19 - 20, 2019

- Conducted meta-analysis across several articles and research papers to collect information on properties and effects of lunar dust on current lunar rover models.
- Created conceptual representation of lunar rover chassis featuring double wishbone suspension system on SolidWorks

Ultimate Frisbee

March 2014 – Present

- First Place at Canadian Eastern Indoor Ultimate Series 2019 on Waterloo Varsity A.
- Led team as captain to Canadian Ultimate Championships 2017 in Ottawa. Demonstrated leadership, perseverance, and ability maintain team's positive attitude and high morale.
- Directed, organized, and oversaw numerous fundraisers as team manager. Was able to fundraise a total of over \$7 000 over two seasons.