



YUAN  
DAI

Undergraduate  
Mechanical Engineer

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## SUMMARY OF QUALIFICATIONS

- Experienced with modelling and plotting in **SolidWorks** and **AutoCAD**
- Proficient in **Java**, **Python**, **C++**, **HTML**, familiar with **SQL**
- Skilled with **Microsoft Word** and **Excel**
- Familiar with **engineering drawings** and **GD&T**
- Experienced with **soldering** and **machining**, including **mill**, **lathe**, **laser cutting**, **3D printing**
- Extensive **teamwork** and **communication** skills from past projects and experiences

## EXPERIENCE

- 2020      **Online Skills Development Assistant**      *University of Waterloo*
- Led a team of 4 to solve environmental issues on our campus
  - Worked with Grand Challenges Canada and Waterloo Undergraduate Student Association to develop plans and resources to reduce textile waste on campus
  - Created educational modules highlighting skills such as problem solving, online working and time management
- 2019      **Park Manager/Ride Attendant**      *Centreville Amusement Park*
- Awarded rookie of the year for outstanding problem solving and communication
  - Worked with Security, Health & Safety facilities to ensure smooth operation
  - Effectively operated park rides and machinery
- 2015-2018      **Lead Summer Camp Counsellor**      *Cybercamp Robotics Academy*
- Supervised 40 campers ages 12 - 14
  - Prepared 20–40 minute daily lessons on robot design logistics and ROBOTC
  - Designed activities ranging from robotics competitions to outdoor games

## PROJECTS

- 2019-present      **Midnight Sun Aeromolds Sub-Team Lead**
- Active member of a solar car student design team, dedicates 6-12 hours weekly
  - Reduced door mold material cost by 28% using SolidWorks design analysis
  - Constructed all body molds using MDF with various equipment
  - Created car body with carbon fiber and honeycomb sandwich panels
- 2015-2019      **Toronto Science Fair**
- Nominated to the city level science fair 3 times due to outstanding projects
  - Incorporated circuit design and various electronic parts to create an arm sleeve that charges phones using body heat, practiced professional writing and Excel
- 2019      **Engineers Without Borders**
- Led a team of 5 students to solve problems in the local community
  - Contacted 5 politicians to install a new stop sign, and pitched ideas for new garbage can designs and plans to improve green spaces

## EDUCATION

- 2019-Present      Candidate for BAsC. Mechanical Engineering      *University of Waterloo*

## INTERESTS

- **Team sports** – 3 years of AA volleyball and basketball, developed leadership and teamwork skills
- **Chess** – 2000 ELO rating, 99<sup>th</sup> percentile on chess.com
- **Programming** – developed iOS tweaks using Xcode and Theos as hobby
- Learning new skills and meeting new people