

Maxwell Yang

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Technical Skills:

- Working knowledge of C, Java, MATLAB, and LaTeX
- Proficient in Microsoft Word and Excel
- Basic CAD software knowledge in SOLIDWORKS

Technical Projects:

Rainwater Simulation | Mar. 2018 – Apr. 2018

- Created a rainwater simulation to provide an efficient method of delivering filtered and sufficient water to a household
- Utilized simulation in Excel to model 7 central parameters including cost, on-demand flow rate, reliability, etc. to strategically determine optimal parameters
- Design-based model work achieved household requirements while optimizing parameters to 75% stakeholder satisfaction

Autonomous Robotic Claw | Jan. 2018 – Feb. 2018

- Built a fully-functioning autonomous robotic claw to successfully pick up a variety of distinctly shaped objects under a 5 minute time constraint
- Designed and constructed several prototypes using cardboard/metal sheets with workshop hand tools such as a plier and rivet gun, with the focus of efficiency and adaptability
- Coded robotic claw functionality utilizing Arduino/C to operate the system

Assistive Handheld Device | Nov. 2017 – Dec. 2017

- Modeled an assistive device to assist operation in maneuvering a computer mouse with ease for a client with partial paralysis and limited arm movement
- Designed prototypes using SOLIDWORKS to optimize function and comfort for client

Experience:

Math Teaching Assistant | University of British Columbia | Sept. 2018 – present

- Assist 20 students weekly in completing in-class assignments
- Provide guidance and improve collaboration to overall strengthen math skills
- Self-taught LaTeX to create worksheet questions for 20 students

English Tutor (Volunteer) | Cook Elementary School | Oct. 2015 – Dec. 2015

- Assisted a struggling student improve their reading comprehension and revitalize their motivation in English
- Incentivized reading as a reward for accomplishing writing and reading comprehension exercises which further improved the student's skill and motivation

Education:

BASc in Engineering Physics 2022 (expected) | University of British Columbia

- 88.5% cumulative average, Dean's Honour List