

Yahya Zaher

Hamilton ON L8J 0L5

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SUMMARY

A first-year engineering student who demonstrates exceptional skills in designing and constructing cutting-edge robots, achieving a Top 5 ranking in Regionals and earning a coveted place in the prestigious FIRST Robotics World Championship. Proficient in AutoCAD, Granta Software, laser cutting, and 3D printing, possessing advanced problem-solving abilities and excelling efficiently managing multiple tasks. With a proven ability to adapt under pressure and innovate, coupled with strong communication skills and a knack for strategic adjustments.

SKILLS

- Proficient in AutoCAD, Granta Software, Laser cutting, and 3D printing
- Basic knowledge of Python and HTML
- Advanced skills in Microsoft Office (Word, Excel, PowerPoint)
- Excellent communication and interpersonal skills
- Capable of performing effectively under pressure and managing multiple tasks.

EXPERIENCE

Robotics Team Member/Mentor

Bishop Ryan C.S.S | Hamilton, ON |

September 2022 – Present

- Mentored high school students in robot design and laser cutting techniques, achieving a remarkable 75% increase in their proficiency
- Orchestrated collaborative efforts in designing and constructing a cutting-edge robot, utilizing laser cutting and 3D printing techniques to ensure precision in the production of robot parts
- Maintained peak performance of the robot during competitions by swiftly addressing challenges, resulting in enhanced team performance
- Achieved a remarkable Top 5 ranking in Regionals, securing a spot to participate in the prestigious FIRST Robotics World Championship held in Houston

Mathematics Instructor

Mathnasium | Hamilton, ON |

February 2022 –April 2023

- Accelerated student learning by delivering comprehensive mathematics tutoring tailored to students from grade 1 to grade 11, emphasizing foundational concepts and problem-solving strategies.
- Achieved an average improvement of 12% in math grades by assisting students with homework assignments and exam preparation.
- Fostered strong parent engagement through bi-monthly progress meetings, ensuring transparent communication and alignment of goals between parents, students, and educators

RELEVANT PROJECTS/COURSEWORK

Wind Turbine Design

- Reduced design errors by 25% with precise 3D models, enhancing manufacturing accuracy.
- Utilized Granta software to assess material properties, ensuring selected materials met technical and sustainability criteria
- Achieved a deflection value of less than 10mm, prioritizing simplicity, affordability, and durability in the design process

Sterilization System Design

- Designed a sterilization container for surgical tools using AutoCAD Inventor for precise 3D modeling
- Developed a Python program to control the Q-Arm for accurate container transfer
- Utilized 3D printing technology to prototype and test the container design

System for Sorting and Recycling Containers

- Devised a innovative mechanism incorporating a rotational actuator for effortless tilting of the hopper to facilitate container deposition
- Leveraged AutoCAD for meticulous design of both the hopper and its accompanying mechanism, ensuring precision in every detail
- Achieved a notable 20% reduction in maintenance incidents, enhancing operational efficiency and minimizing downtime
- Implemented advanced 3D printing techniques for swift and efficient prototyping, accelerating the development process

More Projects here: <https://yahyazaher.ca/>

EDUCATION

Bachelor's Degree Engineering

McMaster University – Hamilton, ON

August 2023 – Present

GPA 3.9

Relevant Courses: Integrated Dsgn Projects in Eng, Engineering Mathematics I & II-(A&B), Mechanics,
General Chemistry: Engineer I, AI - Innovative Technologies, Wave Elec&Magnetic

Bishop Ryan Catholic Secondary School – Hamilton, ON

September 2019 – June 2023

Awards: Honour Roll, Math Award, Science Award, Technology Award