

SEIF HASSAN

Mechanical Engineering Student

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EXPERIENCE

Research Assistant at Microrobotics Laboratory

Dec 2016 to Present | Toronto, Canada

- Conducted research into the fabrication of magnetically actuated microrobots
- Modified material composition of the microrobots to improve their 3D control
- Analyzed experimental results and presented them through written reports

Maintenance Data Analyst at Bombardier Aerospace

May 2017 to Aug 2017 | Toronto, Canada

- Utilized MicroStrategy to build a business intelligence tool and reduce resources required to generate monthly fleet performance reports
- Optimized and deployed web-based dashboards to mobile devices that monitor the reliability performance of the fleets
- Developed an internal tool on MicroStrategy that allows easier distribution and management of dashboards and reports

Research Assistant at Human Factors and Applied Statistics Laboratory

May 2016 to Aug 2016 | Toronto, Canada

- Conducted research on social norms and distracted driving behaviour among teenagers through a cross-sectional study
- Manipulated, analyzed, and presented large datasets from over 100 participants using R and data mining tools

PROJECTS

Design and Kinematic Analysis of a Foot Pedal Type Trash Bin

- Designed and conducted a full kinematic analysis of a foot pedal operated trash bin mechanism in 5-person team
- Prepared a CAD model in SolidWorks to simulate and study the mechanism
- Performed a position, velocity, and acceleration analysis on MATLAB

Modelling and Analysis of a CNC Milling Machine

- Researched and analyzed mechanical parts and mechanisms to design a 3-axis CNC Milling Machine in a 6-person team
- Designed the CNC Milling Machine assembly and created 2D engineering drawings in SolidWorks

Mechanical Design of an Autonomous Sumo Robot

- Built an autonomous battle robot that can detect other robots using sensors and push them out of the ring in a 3-person team
- Created a 3D CAD model in SolidWorks and used various tools to drill, cut and machine sheet metal to build a lightweight robot

EDUCATION

Candidate for B.A.Sc. in
Mechanical Engineering at
University of Toronto
Sep 2015 to May 2019 (expected)
Cumulative GPA of 3.79/4 (84.95%)

Streams

Mechatronics
Solid Mechanics and Design

Relevant Courses

Engineering Analysis
Numerical Methods
Mechanical Engineering Design

SKILLS

Mechanical Design

SolidWorks
Engineering drawing and sketching
Cambridge Engineering Selector

Machine Shop

Lathe
Mill
Drill Press
Band Saw
Hand Tools

Modeling and Programming

MATLAB
Java
R
MicroStrategy
Minitab

INTERESTS

Robotics
Futsal