

Seif Hassan

Junior Mechanical Engineer

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EDUCATION

Candidate for B.A.Sc. in **Mechanical Engineering** at **University of Toronto** from **Sep 2015** to **May 2019** (expected)

RELEVANT COURSES

- **Mechanical Engineering Design**
Key topics: CAD in SolidWorks, mechanical parts and mechanisms
- **Materials Science and Laboratory Work**
Key topics: Properties of materials, material selection
- **Dynamics**
Key topics: Newtonian mechanics

RESEARCH EXPERIENCE

Research Assistant at the **University of Toronto** from **Dec 2016** to **Present** in **Toronto, ON**

- Conducting research at the Microrobotics Laboratory to enhance bio-inspired, magnetically actuated micro-scale robots
- Researched fabrication and composition improvements for microrobots

Research Assistant at the **University of Toronto** from **May 2016** to **Aug 2016** in **Toronto, ON**

- Conducted research on social norms and distracted driving behaviour among teenagers using a cross-sectional study at the Human Factors and Applied Statistics Laboratory
- Manipulated, analyzed, and presented large amount of data sets from over 100 participants using data mining tools such as R

PROJECTS

CNC Milling Machine from **Sep 2016** to **Dec 2016**

- Designed and modeled a fully-functional SolidWorks model of a 3-axis CNC Milling Machine in a 6-person team
- Machine is designed to have a resolution of 2 μm and cost CAD \$1,200 in production; intended for use by small businesses.

Noise Abatement and Visual Privacy Improvement from **Jan 2016** to **Apr 2016**

- Designed a fence addition for a client to reduce noise from air conditioning units and increase privacy, with a team of 5 students
- Followed an engineering design process, including human/environmental impact assessment and cost assessment, and proposed a polymer sheet and laser system to decrease noise by up to 85% and block cameras infringing on privacy

Autonomous Robot from **Oct 2015** to **Mar 2016**

- Built a Sumo battle robot for the University of Toronto Robotics Association Sumo Competition in a 3-person team
- Designed a 3D CAD model in SolidWorks and used various tools to drill, cut and machine sheet metal to build the robot.

True Sport Coaching App from **Feb 2015** to **Jun 2015**

- Created an Android soccer coaching app for True Sport, a sports non-profit organization. The app allows coaches to manage their team and communicate game strategies with their players
- Programmed in Java using the Android Developer Tools for Eclipse IDE

SKILLS

PROGRAMMING LANGUAGES

Java • Android • R

MACHINE SHOP

Lathe • Mill • Drill Press • Band Saw • Hand Tools

SOFTWARE

SolidWorks • MATLAB • Minitab

AWARDS

- Dean's List (2015 to Present)
- President's Entrance Scholarship
- 2015 TechU.me AppJam Finalist

INTERESTS

Traveling • Futsal • Robotics