Rohan Ahmed

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HIGHLIGHTS OF QUALIFICATIONS

- Superior technical writing skills developed through writing procedures and reports at work.
- Highly Proficient in MS Office software, including MS Word, Excel, PowerPoint and Outlook.
- Skilled at various CAD/CAM/CAE software, namely Autodesk Inventor, SolidWorks CAD, Siemens NX, ABAQUS FEA, and ANSYS Structural and ANSYS CFX and well capable of learning other software.
- Proficient at programming languages such as Python, Java, and Matlab.
- Excellent interpersonal skills; able to develop strong relationships with co-workers.
- Experienced with vehicle systems and workshop machinery
- Innovative thinker, able to come up with creative and unique solutions to handle complex problems.
- Have excellent organizational and communicational abilities demonstrated on the job and during school projects.
- Involved in the designing and construction of the McMaster Solar Car, Soft Robotic Hand, as well as various other personal projects.

EDUCATION

Bachelor of Engineering, Mechanical **Class of 2018**
McMaster University, Hamilton ON

- GPA in Mechanical Engineering of 10.1 on a 12 point scale (3.7 out of 4.0).
- Achieved Dean's Honours List for academic excellence.

Relevant Projects

Mechanical Engineering Final Year Capstone Project **2017-2018**

- Led a team of 3 students to design, build, and test a pneumatic soft robotic hand capable of grasping commonly found objects from conception to final prototype.
- Employed Finite Element Analysis (FEA) on high curvature and non-linear material using ABAQUS CAE to verify geometry of the hand prior 3D printing the molds.
- Molds were developed using Autodesk Inventor and 3D printed using an FDM printer.
- Design of the control system was done in conjunction with the mechanical design where python code was implemented onto an Arduino microcontroller to attain valve control.
- Final Prototype was constructed and tested to ensure all criteria in the project scope were met.

CAD/CAM/CAE Differential Gearbox **2018**

- Team member of 4 engineering students tasked with designing a differential gearbox for a rear wheel drive vehicle (INFINITY G35)
- Preliminary calculations done using vehicle specs, and design was optimized using CAD/CAM/CAE software achieving differing wheel rotation in various loading scenarios.

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WORK EXPERIENCE

Ontario Power Generation, Project Engineering Student **May 2016 - May 2017**

- Worked on the Fukushima Project to mitigate the impacts of a Beyond Design Basis Event at the Pickering Nuclear Generating Station.
- Worked closely with a Senior Engineer to perform modifications to Emergency Mitigation Equipment that would perform the task of cooling the reactor in a disaster event.
- Attained strong interpersonal abilities by collaborating with project team members and various trade technicians to ensure the completion of modifications.
- Created work plans to perform equipment tests in the field.
- Developed sound analytical and critical reasoning skills by interpreting technical data to troubleshoot problems that arose regularly within the project.

Engineering Physics Teaching Assistant **September 2015 – December 2015**

- Developed excellent communication and leadership ability by conducting solo tutorials and lab sessions in Physics for a class of 36 first year engineering students.
- Demonstrated teamwork through invigilating midterm tests for 200+ McMaster engineering students alongside other Teaching Assistants.
- Firm knowledge of first principles in engineering was demonstrated and applied to teach students.
- Assigned the responsibility of marking midterms and quizzes for the students in the tutorial.

SKILLS

Software

- Proficient in Microsoft Office, Java, and Python, and quickly able to learn other languages.
- Skilled with Engineering Tools such as ANSYS Structural, ANSYS CFX, and ABAQUS FEA as well as CAD Autodesk Inventor, and SolidWorks, Siemens NX and Matlab.

Hardware

- Experienced with mechanical systems gained through prior project engineering experience as well as personal interests.
- Experienced with lab equipment and instrumentation devices gained through lab work.
- Experienced with milling, drilling, band saws and lathes in the shop.

EXTRACURRICULAR ACTIVITIES

- Student Member, McMaster Engineering Society **2013-2018**
- Student Member, Mechanical team member for McMaster Solar Car **2014-2015**
  - Modified the steering system, for the McMaster's Solar Car prototype
  - Developed the topshell latch mechanism and machined parts for the installation
  - Implemented changes to the old CAD files, mainly using Autodesk Inventor