**EDUCATION**

**UNIVERSITY OF TORONTO Toronto, Ontatrio**

Masters of Engineering – Emphasis on Analytics [Aug 2018- Present]

Department : Mechanical and Industrial Engineering [Engr GPA: 3.94/4.0]

**COLORADO STATE UNIVERSITY Fort Collins, Colorado**

Bachelor of Science [Sept 2013- May 2017]

Major: Engineering Science. Concentration in Space Engineering [Engr GPA: 3.19/4.0]

Minor: Mathematics

**EXPERIENCE**

## PRIMARY PROGRAMMER FOR TRAY SOLUTIONS – TORONTO [May 2019 – Present]

**[Front and back end developer][Hatchery – University of Toronto]**

* Website created through Django framework and deployed through AWS

## TEACHING ASSISTANT IN DATA STRUCTURES [Jan 2019 –April 2019]

**[Teaching Assitant and Lab Coordinator][University of Toronto]**

* Lab teaching assistant in data modeling, MySQL and Java

## WEB DEVELOPER - VICTORIA UNIVERSITY [Sept 2018 – May 2019]

**[Front and back end developer][E.J. Pratt Library]**

* Training with Drupal and mainintain the EJ Pratt library website and database management.

**INTERN - KING ABDULLAH UNIVERSITY OF SCIENCE AND TECHNOLOGY** [June 2017-Dec 2017]

**[Soft Robot programming][Integrated Nanaotechnology Lab - Dr. Muhammad Mustafa Hussain]**

* In charge of designing and constructing a heart sleeve that would be capable of actuating heart muscles to help with ventricular blood circulation
* A soft robot was contructed that would actuate upton an electrical stimulus. The testing and configuration of this robot was done and a final report was presented to the university.

**TEAM MEMBER - COLORADO STATE UNIVERSITY** [Aug 2016- May 2017]  **[MOTOR ENGINEERING RESEARCH CENTER – Dr. Donald W. Radford]**

**Senior Engineering design project- BOEING- 3D printed Attenuator team**

* Designed and analyzed the dual gantry system on a 3D printer capable of printing PEEK thermoplastics.
* Responsible for creating the CAD model of the printer. Doing mechanical and heat analysis on the CAD.
* Machined custom aluminum components for a 3D printer using a CNC, vertical mills, horizontal band saw

**TEAM MEMBER - COLORADO STATE UNIVERSITY**  [Jan 2016 – May 2016]

**[MECHATRONICS LAB]**

* Constructed an Interactive Punching bag for the Mechatronics Project:
* In charge of electronic and mechanical integration of the project
* Experience with IR sensors, SD card and microcontroller programming and actuator integration.

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# DATA SCIENCE PROJECTS

**NLP Analysis**

* Analyzing sentiments using NLTK libraries to review hotels from Trip Advisor and reporting on specific reasons why hotels were good or bad.
* Analyzing tweets of airline travelers to quantify emotions felt by passengers towards any particular airline company.

**KAGGLE Survey analysis**

* Cleaning survey results and analysing correlation between different features and salaries, training various machine learning models to predict future trends based on the test set.

**MovieLens - Recommender System**

* Conducting collaborative dilerting between user-user and item-item similarity to recommend people to movies they would enjoy based on 100000 movie ratings from 943 users and a selection of 1682 movies.

**20 News Groups - Classfication of large data sets**

* Anaylsing 20000 news paper articles and catagorizng them into specific groups and cross validating the results based on different parameters such as number of features, hyperparameter tuning, etc.

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# EXTRACURRICULAR ACTIVITIES

**Financial Director, AMIGAS (Association of Mechanical and Industrial Graduate Students):**  [May 2019 – Present]

* Incharge of maintaining financial records of the association, budgeting for the academic year, applying for funding and general maintanace of all financial transactions that go through the club.

**Member, ISA (Indian Students Association):** [Sept 2013 – May 2017]

* MC/ Event manager for India Nite 2013-2015
* Involved in the organization, coordination, and marketing for Indian Events (Diwali night, Holi, World Unity Fair and India Nite) around CSU.

**Volunteer, CSU Chemistry Club:** [Sept 2013 – May 2017]

* Participated in setting up and conducting STEM projects and community outreach programs.

# ASSETS & INTERESTS

* Django framework implementation and deployment to Elastic Beanstalk
* Experience in Machine learning, data prediction and implementation of scikit learn, matplotlib, pandas

[Jan 2018-Aug 2018]

* Certification in [APTECH Learning]:
  + C/C++, Java
  + JSON, UI/UX, JQuery, MySQL, Oracle
  + HTML, JavaScript, CSS
* Experience in Machining tools, linkage systems, electrical systems and mechatronic systems.
* Knowledge in Aerodynamic, space propulsion, mechatronics systems and Fluid systems
* Adobe Photoshop, Java, ANSYS programming analysis, CREO parametric modeling, SolidWorks CAD modeling, CNC and lathe machining, Microsoft word, Microsoft Excel and Microsoft PowerPoint
* Certified in lab safety training, hazardous waste disposal and first aid
* Languages:English, Hindi, Tamil.

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