**Final year Engineering Graduate student seeking full-time employment starting June 2020.**

**EDUCATION**

**UNIVERSITY OF TORONTO Toronto, Ontario**

Master of Engineering – Emphasis on Analytics Aug 2018- Present

Department of 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 – Space Engineering Concentration Engr GPA: 3.19/4.0

Minor: Mathematics

# TECHNICAL ASSETS & INTERESTS

* **Cloud:** AWS Elastic Beanstalk
* **Software Languages:** Python, C, C++, Java
* **Web Development:** Django, HMTL, JSON, CSS JavaScript, bootstrap, MySQL, Oracle, jQuery.
* **Version controlling system:** Git, GitHub
* **Machine Learning libraries:** NumPy, SciPy, pandas, Matplotlib, Sci-kit Learn, Seaborn, beautifulSoup
* **Big Data (Hadoop):** HDFS, pig, spark, yarn, MapReduce, Ambari
* **Machine Learning Concepts:** data mining, data cleaning, Linear regression, Logistic regression, clustering, decision trees, neural nets, classification, feature engineering, SVM, non-linear programming, Artificial Neural network, time-series algorithm, TensorFlow.
* **Mechanical/electrical engineering systems:** Arduino Duo, CNC, machine shop (lathe, bandsaws, drill press), Ansys CFD, SolidWorks CAD modeling, CREO parametric modeling.
* **Communication Languages:** English (native), Hindi and Tamil (fluent)

**EXPERIENCE**

## DATA ANALYTICS ASSISTANT INSTRUCTOR May 2020 – Present

**[University of Toronto]**

* Facilitating instructor to deliver course material on topics about data modeling, front end development and visualization, python application development and tableau
* Duties include debugging coding issues faced by students in their personal projects.

## CO-FOUNDER AND PRIMARY PROGRAMMER - TRAY SOLUTIONS Inc. May 2019 – Dec 2019

**Front and Back End Developer [Hatchery – University of Toronto]**

* Designed and developed mobile website (https://entray.ca) for multi-vendor restaurant marketplace using dine-in services
* Created website using Django framework and deployed through AWS, with external payment gateway (Stripe).
* Over 100 transactions successfully conducted through the website and completed two successful pilot tests at restaurants and three restaurants fully integrated with Tray

## DATA STRUCTURES TEACHING ASSISTANT Jan 2019 –May 2020

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

* Facilitates classes and tutorials on data modeling, MySQL DBMS, OLAP queries, and DB application with JDBC
* Supports professor with curriculum design and project assessments.

## WEB DEVELOPER AND TECH DESK ASSISTANT - VICTORIA UNIVERSITY Sept 2018 – May 2020

**Front and Back End Developer [E.J. Pratt Library]**

* Maintained the EJ Pratt library website, front end development, implementing search systems and database maintenance

## PRICEWATERHOUSECOOPERS CONSULTING PROJECT Jan 2019 –April 2019

**Communication liaison and team member [University of Toronto]**

* Prepared a comprehensive report on the diversification of consulting firms.
* Provided data analysis which promoted collaboration with other firms and development of new technology to allow for hybrid of service and product-based model rather than their current, pure-play, service-based model.

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

**Soft Robot Programming [Integrated Nanotechnology Lab - Dr. Muhammad Mustafa Hussain]**

* Designed and constructed a soft robot that would actuate under the influence of an external stimulus to be able to provide sufficient force (as a result of volume expansion) to eventually be used in biomedical applications.

**BOEING 3D PRINTED ATTENUATOR PROJECT - COLORADO STATE UNIVERSITY**  Aug 2016- May 2017 **Senior Engineering Design Project** **[Motor Engineering Research Centre – Dr. Donald W. Radford]**

* Designed and analyzed the dual gantry system on a 3D printer capable of printing PEEK thermoplastics
* Created CAD model of the printer and used this to conduct mechanical and heat analyses
* Showed proof of concept on lightweight, heavy-duty 3D printed alternatives for attenuators that line the inner walls of airplane turbines

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

**[Mechatronics Lab]**

* Constructed an interactive punching bag for the Mechatronics Project
* Led the electronic and mechanical integration of the project
* Programmed IR sensors, actuator integrations, SD cards, and microcontrollers

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# DATA SCIENCE PROJECTS

**NLP Analysis**

* Analyzed sentiments using NLTK libraries to study reviews of hotels from Trip Advisor and report on specific characteristics of a hotel that were positive or negatively rated. The goal was to visually represent the performance of a hotel
* Analyzed tweets of airline travelers to quantify emotions felt by passengers towards any particular airline company in order to understand reasons for grievances towards the airline and created a regression model to summarize all the possible criteria for an airline’s negative reputation.

**KAGGLE Survey Analysis**

* Cleaned survey results and analyzed correlation between different features and salaries, trained various machine learning models to predict future trends and correlations between a person’s qualification and average salaries.

**MovieLens - Recommender System**

* Implemented a collaborative recommendation system to study user-user and item-item similarity to recommend movies to people based on 100,000 movie ratings from 943 users and a selection of 1,682 movies.

**20 News Groups - Classification of Large Data Sets**

* Analyzed 20,000 newspaper articles and categorized them into specific groups based on content of articles, 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

* Maintained financial records, planned annual budget, applied for funding, and managed all financial transactions

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

* Event manager and emcee for annual India Nite 2013-2015
* Supported the organizing, coordinating, and marketing of Indian Events (Diwali night, Holi, World Unity Fair, and India Nite) around CSU.