

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

EDUCATION

UNIVERSITY OF TORONTO

Master of Engineering – Emphasis on Analytics
Department of Mechanical and Industrial Engineering

Toronto, Ontario

Aug 2018- Present
Engr GPA: 3.94/4.0

COLORADO STATE UNIVERSITY

Bachelor of Science
Major: Engineering Science – Space Engineering Concentration
Minor: Mathematics

Fort Collins, Colorado

Sept 2013- May 2017
Engr GPA: 3.19/4.0

TECHNICAL ASSETS & INTERESTS

- **Cloud:** AWS Elastic Beanstalk
- **Software Languages:** Python, C, C++, Java
- **Web Development:** Django, HTML, 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

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.

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.