

EDUCATION

UNIVERSITY OF TORONTO

Masters of Engineering – Emphasis on Analytics
Department : Mechanical and Industrial Engineering

COLORADO STATE UNIVERSITY

Bachelor of Science
Major: Engineering Science. Concentration in Space Engineering
Minor: Mathematics

Toronto, Ontario
[Aug 2018- Present]
[Engr GPA: 3.94/4.0]
Fort Collins, Colorado
[Sept 2013- May 2017]
[Engr GPA: 3.19/4.0]

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 Assistant 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 maintain the EJ Pratt library website and database management.

INTERN - KING ABDULLAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

[June 2017-Dec 2017]

[Soft Robot programming][Integrated Nanotechnology 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 constructed that would actuate upon 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.

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.

Krutheeka Rajkumar, BS, MEng

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MovieLens - Recommender System

- Conducting collaborative filtering 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 - Classification of large data sets

- Analysing 20000 news paper articles and categorizing them into specific groups and 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]

- Incharge of maintaining financial records of the association, budgeting for the academic year, applying for funding and general maintenance 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
 - Certification in [APTECH Learning]: [Jan 2018-Aug 2018]
 - 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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