

Krutheeka Rajkumar, BS, MEng

Phone number: +1(647)549-6432 • E-Mail: krutheeka.rajkumar@gmail.com • LinkedIn: krutheeka-rajkumar

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

[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 – UNIVERSITY OF TORONTO

[Jan 2019 –April 2019]

[Teaching Assistant and Lab Coordinator][Data Modeling]

- Lab teaching assistant in data modeling, MySQL and Java

VICTORIA UNIVERSITY IN UNIVERSITY OF TORONTO

[Sept 2018 – May 2019]

[Web Developer][E.J. Pratt Library]

- Getting training on working with Drupal and maintain the EJ Pratt library website and database management.

[INTERN][INTEGRATED NANOTECHNOLOGY LAB- Dr. Muhammad Mustafa Hussain]

[June 2017-Dec 2017]

- 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.

COLORADO STATE UNIVERSITY

[Aug 2016- May 2017]

[TEAM MEMBER] [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

COLORADO STATE UNIVERSITY

[Jan 2016 – May 2016]

[TEAM MEMBER] [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.

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]:
 - C/C++, Java
 - JSON, UI/UX, AdJile, 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

Bangalore, India

[Jan 2018-Aug 2018]

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- 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.

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 maintainance 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.

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Cover Letter: Teaching Assistant for APS1070 – Foundations of Data Analytics and Machine Learning

Krutheeka Rajkumar
Student ID: 1004689553

18th July 2019.

Dear hiring committee and David Duong,

I am a graduate student with the Mechanical and Industrial Engineering department at U of T and am writing to you in response to the Teaching Assistant job posting. I am currently pursuing my masters in Industrial Engineering with an emphasis in Analytics. As part of my degree requirements I have taken Introduction to Data Science and Analytics (MIE 1624H) and Decision Support Systems (MIE 1513H) and scored an A-grade in both courses. I primarily code in Python and use Jupyter notebook and use other cloud based platforms for coding. The projects I have completed through these two courses allowed me to learn and implement python libraries such as scipy, numpy, pandas, matplotlib, NLTK, and much more. As part of my undergraduate degree, I was awarded a minor in Mathematics, so I am well versed with linear algebra, matrices, statistics and probability and my previous TA position was for the data structures course. During my last TA position, I was in charge of lab sessions every week (for 2 hours) where we assisted students in their weekly coding assignments – primarily in written in Java and SQL (in Microsoft access). Not only was knowledge of the subject matter necessary, but also effectively communicating to students to aid their understanding of the topic.

Apart from my qualifications and my activities, I believe I would be a perfect fit to be a TA because I am a pleasant person with excellent problem solving skills. I am an international student from India and have lived in the middle east and the United States before moving to Toronto. This quality makes me culturally open-minded and a reliable person for anyone to talk to. Being in engineering programs for five years allows me to grasp technical subjects quickly, troubleshoot problems and learn new software efficiently. Furthermore, having been through similar classes, I understand the level of support undergraduate students might need, and believe I would be able to effectively support them in this class.

I thank you for this opportunity and if you have any questions, please feel free to contact me at krutheeka.rajkumar@gmail.com or krutheeka.rajkumar@mail.utoronto.ca or at (647)-549-6432

Best regards,
Krutheeka Rajkumar