

# Anush Kumar Venkatesh

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## Education

### University of Colorado Boulder

*Master of Science in Computer Science*

August 2022 – July 2024

Boulder, U.S.A

### Ramaiah Institute of Technology

*B.E in Information Science and Engineering, CGPA : 9.48*

August 2015 – July 2019

Bengaluru, India

## Technical Skills

**Languages/ Frameworks:** Python, Java, HTML/CSS, JavaScript, Julia, Pytorch, Oracle SQL, Mongo DB

**Developer Tools:** VS Code, Eclipse, Amazon Web Services (AWS), Android Studio, IntelliJ

**Technologies:** Linux, Jenkins, Git, GitHub, unittest, Apache Kafka

## Experience

### J.P.Morgan & Chase

*Associate Software Engineer*

January 2019 – July 2022

Bengaluru, India

- Collaborated to develop a heuristic and Monte Carlo Simulation-based Counterparty Credit Risk calculator in Python. It computed the risk associated with over 3000 clients the firm trades on a day-to-day basis.
- Optimized the distribution logic for processing different clients' data in parallel and reduced execution time by 4 hours.
- Worked with cross-functional teams and laid out a design to use Kafka for ingesting data from 20 plus upstream sources.
- Migrated one-third of the codebase from Python 2.7 to Python 3.6, ensuring backward compatibility.
- Spearheaded a five-person team to train a Reinforcement Learning model as part of the AWS deep racer program internal to the firm. The group stood sixth, competing with over 100 participating teams.

### Stride.ai Inc

*Summer NLP Intern*

June 2018 – August 2018

Bengaluru, India

- Devised a web scraping tool using Python and Selenium to download publicly available documents from financial domains. It reduced 15 weekly person-hours.
- Worked with the team to train a Semantic Role Labeling model for financial data. Led the effort to improve the F1 score from 87.5 to 91.67 by performing a feature ablation study.

## Publications

**Anush Kumar, Nihal V. Nayak, Aditya Chandra and Mydhili K. Nair. Study on Unsupervised Statistical Machine Translation for Backtranslation. *Proceedings of Recent Advances in Natural Language Processing (RANLP 2019)*, Varna, Bulgaria. ([paper](#))**

## Projects

### Mathematical Reasoning using MathQA dataset | *Pytorch, OpenNMT* | [🔗](#)

March 2022

- Built a Transformer based Fixer module to repair incorrectly annotated data points from the MathQA dataset using Self-Supervision. It corrected 16% of inaccurately labeled data from the training set.

### Soft Braille Desktop App | *Python, PyQt* | [🔗](#)

July 2018

- Created a desktop app to help teachers prepare learning material for visually impaired children from elementary school.
- Introduced an innovative algorithm to represent edges of an image with Braille characters to mimic tactile graphics.
- Developed a GUI component to assist in converting an English textbook to its Braille equivalent.
- Recognized with Inspiration award by Ministry of Social Justice, Govt of India.

### Post-IT Android App | *Java, Android Studio, Firebase* | [🔗](#)

October 2017

- Created an android application to keep track of upcoming events around a college campus.
- Implemented a user authentication system that allows only systems administrators to post, update or delete events.

### El-Corteza Web App | *JavaScript, Bootstrap, JSP, HTML/CSS* | [🔗](#)

June 2016

- Built a mock e-commerce web application as part of java vocational training to accept food orders.
- The application won the best project award, contesting against 50 participants.

## Extracurricular

### Workshop on Software Design Patterns

May 2022

- Conducted a software design workshop covering behavioral and creational patterns for undergraduate and postgraduate students.

### Workshop on Git, Github and Node js

May 2018

- Facilitated a series of workshops for peers, junior year, and sophomore year students as part of the developer student community. It covered version control and node js.