

Anush Kumar Venkatesh

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Education

University of Colorado Boulder

Master of Science in Computer Science

August 2022 – May 2024

Boulder, U.S.A

Ramaiah Institute of Technology

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

August 2015 – June 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.