Anush Kumar Venkatesh

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Education

University of Colorado Boulder	**August 2022 – May 2024**
Master of Science in Computer Science	*Boulder, U.S.A*
Ramaiah Institute of Technology	**August 2015 – June 2019**
B.E in Information Science and Engineering, CGPA : 9.48	*Bengaluru, India*

Technical Skills

Languages/ Frameworks: Python, Java, HTML/CSS, JavaScript, Pytorch, Oracle SQL, Mongo DB, React js, Node js
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 — **January 2019 – July 2022**
Associate Software Engineer — *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 — **June 2018 – August 2018**
Summer NLP Intern — *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.