

# ANUSH KUMAR VENKATESH

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## EDUCATION

- **University Of Colorado Boulder** , Boulder, USA  
Master of Science in Computer Science - incoming student for fall 2022
- **Ramaiah Institute Of Technology**, Bengaluru, India  
B.E in Information Science and Engineering CGPA : 9.48  
Aug 2015 - Jul 2019

## SKILLS

- **Programming Languages** - Python, Java, Javascript, HTML, CSS
- **Frameworks** - React, NodeJS
- **Database management systems** - Oracle SQL, Mongo DB
- **Software and Tools** - Git, Jira, Confluence

## WORK EXPERIENCE

- **J.P.Morgan & Chase** | Associate Software Engineer  
Jan 2019 - July 2022
  - Contributed to the development of SACCR (heuristic-based) and IMM (internal market model based) calculators which helps in calculating the **counterparty credit risk** of multiple clients the firm trades with.
  - Primarily worked on refactoring the legacy code responsible for the **distribution and parallel processing** of multiple clients same time. It brought down the execution time by 4 hours.
  - Spearheaded the effort in migrating the codebase from *python 2.7* to *python 3.6*
- **Stride.ai Inc** | Summer Intern  
Jun 2018 - Aug 2018
  - Developed a data scraping tool using python. It helped in automatically downloading publicly available documents from financial domains and extract key data points.
  - Tagged data to identify the regions containing tabular data in PDF-based documents. The data helped in training a CNN-based model to extract tabular information.

## TECHNICAL TALK

- **Workshop on Software Design Patterns**  
May 2022  
Was responsible for the delivery of post-graduate (MSWE12) and under-graduate (IS62) **Software Design Patterns** course at **Ramaiah Institute Of Technology**. The workshop covered behavioral and creational patterns.
- **Hands on Workshop on using Git, Github and Node js**  
May 2019  
Conducted a series of workshops to peers, junior year, and sophomore year students as part of the developer student community. It covered version control systems and node js.
- **Teaching Assistant for Scripting Languages Lab**  
Aug 2017 - Dec 2017  
Held weekly beginner level python classes to peers.

## PROJECTS

- **Tactile Auditory Learning Kit** | Pytorch, PyQt  
Jan 2018 - Jul 2018
  - Implemented a CNN-based model to extract edges out of images and developed an algorithm to fit appropriate Braille characters along the edges of the image. It assisted in printing low-cost tactile graphics.
  - Developed a GUI to assist in converting a PDF-based textbook into its Braille equivalent.
  - The project is currently deployed at **Mathru blind school**, Bengaluru.
- **Mathematical Reasoning using MathQA<sup>1</sup> dataset** | Python, OpenNMT  
Aug 2021 - Mar 2022
  - Worked on building a transformer based Fixer module to automatically correct the incorrectly annotated datapoints from MathQA dataset using self-supervision.
  - The Fixer corrected 16% of incorrectly annotated datapoints from training set ([link](https://math-qa.github.io/))
- **Data Science with Julia** | Julia  
Aug 2019 - Dec 2019
  - Jupyter Notebooks containing code snippets explaining data science concepts ( statistics, supervised learning, unsupervised learning, and visualisation) in Julia. ([link](#))

## 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. ([link](#))

<sup>1</sup><https://math-qa.github.io/>