Eesha Shetty

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EDUCATION

Carnegie Mellon University | Pittsburgh, PA **August 2022 - Present**
Master of Science in Artificial Intelligence and Innovation, GPA: 4.0 **Expected Graduation, May 2024**
Selected Coursework: *Introduction to Machine Learning, Current: Introduction to Deep Learning, Current: Machine Learning with Large Datasets, Current: AI Engineering (Machine Learning in Production)*

Vellore Institute of Technology | Vellore, India **July 2018 – August 2022**
Bachelor of Technology in Computer Science and Engineering, GPA: 8.71/10
Selected Coursework: *Data Structures and Algorithms, Artificial Intelligence, Image Processing*

SKILLS

Technical Skills: Machine Learning, Deep Learning and Neural Networks, Computer Vision
Programming Skills: Python, Java, Tensorflow, PyTorch, PySpark, NodeJS, C/C++, ReactJS, AWS, Git, Docker
Languages: English (Fluent/Native), Hindi (Fluent/Native)

PROFESSIONAL EXPERIENCE

Amazon **Pune, India | Remote**
Software Development Engineering Intern **January – June 2022**
- Developed an event notification system for a new service, using Amazon SQS and Lambda to devise the notification system. This system helped customers who were still subscribed to the older service to receive updates from the new service before they got on-boarded.
- Designed a Data Warehouse for the new service and implemented it on AWS Redshift with an automated pipeline. With this, the service can now store and process a large amount of data on Redshift for applying data analytics or any other tasks which require a lot of data.

Drive Analytics **Chennai, India | Remote**
Computer Vision Intern **September – December 2021**
- Trained Baseball Player Classification Models based on Body Pose Detection, applied concepts of Intersection over Union, YOLO Object Detection and Tracking.
- Models were trained on TensorFlow and deployed into production, improved accuracy from existing models by 5%.

Amazon **Pune, India | Remote**
Software Development Engineering Intern **May – July 2021**
- Automated entire process of Data Subject Access Requests built on an AWS Infrastructure.
- Designed and implemented the entire infrastructure with AWS Technologies such as CloudFormation Templates, SQS, Lambda. This helped automate a process which would usually take about 30 days to do manually.

PROJECTS

Referring Audio Segmentation | Academic Project, Introduction to Deep Learning **March 2023 – Present**
- Given an audio A and a corresponding textual expression E describing a sound event in the given audio A, referring audio segmentation aims to segment the referred segment of the audio.
- Ongoing research, working on implementing this by creating encoders for audio and textual feature extractions and finding the similarity distance between them.

Learning Mutational Signatures | Independent Study Project, with Xu Lab and Lehmann Lab. **February 2023 - Present**
- Working on methods for extracting mutational signatures in cancerous cells
- Ongoing research, applying concepts of Matrix Factorization in Collaborative Filtering, working on figuring out whether recommender model concepts can be applies to genetic data.

Captionary | Academic Project, Art and Machine Learning. [https://tinyurl.com/captionary] **February 2023**
- Created a game inspired by Pictionary, with AI as the middleman providing aid to guesser to converge at a solution. Uses a popular model called ScribbleDiffusion.
- The guesses are scored by a BLIP captioning model, which I fine-tuned on a custom dataset created specifically for this game.

Movie Recommendation System | Academic Project, Machine Learning in Production **February 2023 – Present**
- Created a recommender model with sci-kit learn to provide movie recommendations to a user, provided movie watching data read from a Kafka Stream
- All components are unit tested and triggered by an automated Jenkins CI/CD pipeline. Currently working on creating monitoring tools and deploying into production with Docker.

LEADERSHIP

Member at Association for Computing Machinery, VIT Student Chapter. Worked under the Research Wing from 2018-2021, during that time I was **Co-Editor** at the ACM-VIT Medium Blog [https://medium.com/acmvit] and served on the 2020-2021 Board as the **Technical Director/Vice Chair**.