Ankith Reddy Avula

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Education

University of Texas Arlington **August 2022 – May 2024**
Master of Science in Computer Science (GPA of 4.0 / 4.0) *Arlington, TX*

IIITDM Kurnool **August 2018 – May 2022**
Bachelor of Technology in Computer Engineering (GPA of 3.4 / 4.0) *Kurnool, AP, India*

Experience

Samsung India **May 2021 – November 2021**
Research Intern *Remote*

- Developed an Audio Source separation model for extraction of 4 different audio categories from a given audio track using **TensorFlow**, **UNets**, **Auto-Encoders**, and **Librosa**
- Designed an Audio separation model which extracts the bass, drums, vocals, and other category audios from the given audio file implementing Fourier transforms
- Deployed a model that generates separated audios of the above categories with a mean absolute error(MAE) of 1.3733

Ismriti **June 2019 – July 2019**
Data Science Intern *Kanpur, India*

- Developed a real-time facial emotion recognition system that recognizes and classifies the live facial emotion of the user using **Python**, **CNN**, **TensorFlow**, and **OpenCV**
- Designed a Model that classifies user's facial expressions with an accuracy of 98%

Technical Skills

Languages: C++, Java, Python, HTML, CSS, JavaScript, PHP, SQL, Scala
Technologies/Frameworks/Libraries: TensorFlow, PyTorch, Flask, Git, Hadoop, Apache Spark, Apache Pig, Hive, SparkSQL,

Projects

TRAFFIC AWARE SCALING OPTIMIZATION IN OPENFAAS | *Python, GO, OpenFaaS, Flask*

- Proposed and Implemented a traffic aware scaling algorithm for the OpenFaaS platform for changing the static parameters during scaling
- Improved run times and request handling by 30% for Data Science Functions written in the Function-as-a-service model in the OpenFaaS framework
- Reduced the response time in the proposed design by 50% compared to time taken in Default Static Scaling implementation

MULTI-LABEL CLASSIFICATION FOR LAND COVER DETECTION | *Python, PyTorch, PIL*

- Executed a Transfer learning approach to identify the land cover features from a given multi-spectral image consisting of 12 bands from Sentinel-2 Satellite
- Analyzed the raster bands' reactivity to different land forms based on resolutions
- Obtained a recall of 63.80 for all the bands and a recall of 63.00 when used the RGB bands for prediction

NEIGHBOURHOOD ANALYSIS USING PYTHON | *Python, Folium, Foursquare API, Geocoder*

- Analyzed the neighborhoods of New York City and identified areas with high potential for Indian Cuisine Restaurants
- Identified localities preferable to live where Indian Cuisine Restaurants are available using a rating scale of 10

Awards/Achievements

- Ranked **Top 10** in **IEEE–ICETCI 2021** Competition organized in association with **RRSC–Central**, **NRSC Nagpur**, **ISRO** on **'Machine learning-based feature extraction of Electrical Substations from Satellite data'** using Open-Source tools

Profile Links

- HackerRank
- Leetcode
- Github