Ankith Reddy Avula

+1 214-675-8544 avulaankith.github.io linkedin.com/in/avulaankith/ axa0721@mavs.uta.edu

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

University of Texas Arlington **August 2023 – May 2024**
Graduate Teaching Assistant *Arlington, TX*

- Served as a Graduate Teaching Assistant for CSE 5311 (Design and Analysis of Algorithms, Fall 2023) and CSE 6332 (Cloud Computing and Big Data, Spring 2024).
- Conducted classroom instruction, exam reviews, and oversaw grading and exam proctoring. Organized office hours for student support on projects and conducted doubt-clearing sessions.

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, AWS, React

Projects

TWITTER SENTIMENT ANALYSIS USING DEEP LEARNING | *Python, Pytorch, Tensorflow, BERT* **Github**

- Implemented various deep learning models, including BERT, CNN, LSTM, and BiLSTM, for sentiment analysis on Twitter data and explored combinations such as BERT-CNN, BERT-LSTM, and BERT-BiLSTM to predict sentiments (positive, negative, neutral, or irrelevant) associated with Twitter entities.
- Handled sentiment analysis dataset, recognizing "irrelevant" as a distinct category, Collaborated on Jupyter Notebooks with team for testing and experimentation on models.

MULTI-THREADED FILE SYNC SYSTEM | *Python, Async, RPC, Multi-Threading*

- Created a Python-based system enabling seamless file operations (upload, download, rename, delete) between client and server using RPC based communication Protocols. Utilized multi-threading techniques to improve system reliability and efficiency.
- Integrated an automated file synchronization feature using a helper thread for client-server efficiency. Implemented both synchronous and asynchronous communication for enhanced performance.

BLOGGING WEBSITE | *JavaScript, PHP, CSS, HTML, BootStrap, MySQL* **Github**

- Led the development of a blogging website using HTML, CSS, JavaScript, PHP, and MySQL, with features like user authentication, message posting, and replies.
- Managed deployment on a local server with XAMPP, enabling Apache and MySQL server configuration. Collaborated with a team to build a feature-rich blogging platform with robust user interaction capabilities.

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

- 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

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