Muppidi Rahul Reddy

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EDUCATION

University of Texas at Dallas *Aug '22 – Dec '23*
Erik Jonsson School of Engineering and Computer Science
Master of Science in Computer Science GPA **3.61**
Courses: Statistical Methods for Data Science, Machine Learning, Computer Vision, Big Data Analytics, Design and Analysis of Algorithms, Web Programming Languages, Database Design.

Indian Institute of Information Technology Allahabad *Jul '18 - May '22*
Bachelor of Technology in Information Technology
Courses: Data Structures and Algorithms, Operating Systems, Automata Theory, Database Management, Machine Learning, Computer Networks, Data Mining, Graph Theory, Object Oriented Programming, Wireless Network Security

TECHNICAL KNOWLEDGE

Languages	C/C++, Python, JavaScript, HTML, CSS, SQL, PLSQL, PowerShell/Shell Scripting, Hadoop, PySpark
Databases	MySQL, MongoDB, PLSQL Developer, Oracle DB
Machine Learning	Pandas, Numpy, Yolov5, Tensorflow, Keras, Pytorch, SciPy, Scikit-learn
Cloud Services	AWS S3, Azure Blob Storage, Google Cloud Storage

PROFESSIONAL EXPERIENCE

Coral Innovations Pvt. Ltd, Hyderabad,India *Dec '21 – Jul '22*
Machine Leaning Intern – YOLOv5, Python

- Developed the Meter Board reader which is a core element in the product's design, the product is an application which reads the meter reading from the images taken and interprets the data according to requirements.
- Introduced tools to clean and group the dataset using python and Yolov5 which in turn enhances the efficiency and save time of other employees by 30%.
- Built a Yolo v5 model on images from end to end and trained it to suit the requirement. And was successful in getting predictions of nearly 78%.

ACADEMIC PROJECTS

Predicting Safety Probabilities by Location and Day in Dallas – Pandas, Streamlit, sklearn, Llama -2 *Sep '23 – Dec '23*

- Built a Streamlit Dashboard and run a saved joblib model in the backend while taking the input from the user.
- Used Llama-2 to determine the severity of the crime and scored accordingly. Was successful in achieving **52%** accuracy using the Random Forest classification model.

Real Time Face Detection and Reporting System – Python, Pytorch *Jan '23 – May '23*

- Implemented a Real time face detection system using haarcascade classifier and YOLOv5 model
- We achieved a confidence rate of **63%** and for further development we look to tune the different hyperparameters.

Abstractive Text Summarization Using Natural Language Processing – Python, Pytorch *Jan '22 – May '22*

- Collaborated on enhancing Text Summarization using Python and PyTorch, applying the JEANS (Joint Entity and Summary Generation) approach alongside the BART model.
- The focus remained on preserving factual consistency rather than replicating original outputs.

Semantic Segmentation of Satellite Imagery – Python, Tensorflow *Aug '21 – Dec '21*

- Programmed and crafted a satellite imagery Semantic Segmentation framework in Python with TensorFlow.
- Objects were extracted into three classes from aerial images using the Softmax activation function, model averaging, and CNN, resulting in an impressive accuracy range of **91-95%**.

Preictal and Interictal Seizure Classification Using Spectogram and CNN Techniques - Tensorflow, Keras Aug *'20 – Dec '20*

- Designed a classification system for pre-ictal and inter-ictal seizures, critical in epilepsy treatment.
- Utilized Python, TensorFlow, and Keras to employ spectrograms for data representation and applied CNN to build the model, achieving an accuracy rate of approximately 84.3%.

PERSONAL ACCOMPLISHMENTS

- Notable achievements include leading a team to a top-three finish at PRAGMA, where the team developed a customer churn prediction model.
- Co-ordinator of Geneticx Crew (Dance Crew). Maintained all social media platforms and produced announcements for the Dance Crew.