**Pavan Sai Prasanth Sabnaveesu**

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# **Professional Summary**

* Designed and developed full-stack applications using python, Django, flask, HTML, CSS, jQuery, and bootstrap as front-end and machine learning, deep learning algorithms, and natural language processing techniques as back-end code.
* Adept in machine learning algorithms such as all regression models, SVN, random forest, and XGBoost to predict classification and regressor
* Good knowledge and experience with AI architectures such as CNN, Mask R CNN, YOLOv7, YOLOv8, RNN, LSTM, GAN, and GRU for classification, object recognition, and object segmentation
* Experienced in NLP projects such as data mining, machine translation, sentiment analysis, and chatbot

**Education**

**Texas A&M University Kingsville**

Master’s in computer science **January 2023- Present**

# **Key Areas of Expertise**

Programming : Python (Core & Data Science), R

Web development : Django, HTML, CSS, jQuery, Bootstrap, Rest-API, and Flask

IDE & Environment : Jupyter Notebook, Anaconda, PyCharm, Visual and R-studios

Database : SQL, SQlite3, MongoDB, and PostgreSQL

Data Visualization : Matplotlib, Seaborn, Plotly, and ggplot3

Machine Learning : NumPy, Pandas, and Scikit-learn

Deep Learning & NLP : TensorFlow, Keras, Pytorch, Open CV, NLTK, Gensim, TextBlob, and Spacy

# **Achievements**

* Participated in a couple of Hackathons’ and accomplished ranks from 300 to 400, where more than 3000 members competed
* Obtained a four-star badge on the hacker ranker for completing challenges
* Presented a paper on composite materials at the national conference

**Conference Paper (About to publish)**

Detection and segmentation of wind turbine blades faults using Mask R-CNN, YOLOv7, And YOLOv8 with different Intersection of Unions

**Graduate Research Assistant at Texas A&M February 2023- Present**

* Applied convolution neural network from scratch without using predefined frameworks
* Understood different architectures and presented a couple of literature reviews
* Implemented detection and segmentation for wind turbines blade using Mask R-CNN and YOLOv7 algorithms
* Researched wind turbine blade detection and segmentation using YOLOv8 with varying IoU thresholds

**Professional Experience** **March 2022 – Nov 2022**

**NEXT ROW Private Limited (Software Developer)**

* Designed data pipelines to source data from disparate data sources and rest API framework using python to enable amazon web service cloud services
* Automated and designed pipelines of cleansing, mapping, and feature engineering for model building using machine learning algorithms for flagging spam messages
* Analyzed and clustered unsupervised datasets to discover hidden patterns, data groupings, image analysis, and information retrieval

## **Projects:**

**Chinese to English language translation using NLTK and wubi**

* Cleansed sentences, applied wubi technique, and tokenized given sentences for translation
* Channeled prepared data through encoder, decoder, and applied GRU Architecture to translate text from Chinese to English

**Time Series Visualization and Forecasting of sales using Seasonal Auto-ARIMA model for sales data analysis**

* Visualized and prepared for time-series data using decomposition and stationary process
* Applied and implemented Auto-ARIMA and FB-prophet algorithms to forecast sales