Venkata Hari Abhishek Maruturi

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EDUCATION

- **University of Central Florida -** Master's in Computer Science **Aug 2021 – Present**
- **National Institute of Technology, Kurukshetra-** Electronics and Communication Engineering **Aug 2014 – May 2018**

WORK EXPERIENCE

Graduate Teaching Assistant, University of Central Florida **Aug 2021 - Present**

- Engaged in grading assignments, quizzes, mid-terms 200 students in current semester.
- Supervised over 100 students in Robot Vision Course

R&D Data Scientist, Legato Health Technologies (Anthem) **Dec 2020 - July 2021**

- Designed a custom and unique Brain Tumor Detection algorithm on Keras framework with an error rate of 0.5%.
- Developed a system for the analysis of heartbeat signals produced by EEG sensors using **EDA** and **signal processing** methods.
- Built **Image diagnostic** models for abnormalities such as COVID19, Pneumonia, eye and lung pleural infections.
- Extensively used **TensorFlow** and **Keras** framework for modeling Image diagnostic models.

Data Scientist, Accenture Solutions Pvt. Ltd. **Sep 2018 - Dec 2020**

- Ready to use AI models fueled with expert decision support aided, by explainable AI & prescriptive actions. Create new models, perform teach, and test, publish &share predictive analytics using state-of-the-art machine learning models.
- Designed and built a unique prescriptive analytics algorithm that can provide valuable decisions that a user has to take to reach his desired target.
- Built a service that forecasts important Key Performance Indicators providing key business insights. Implemented Time Series forecasting using **econometric models, PROPHET, LSTM** etc.
- Designed and built an end-to-end Simulation Analytics System which uses **Monte Carlo** Simulation as its simulation strategy.
- Performed detailed **test case design** and executed **functional** and **integrated** tests to assure 100% correctness for the product responsible for the real-time communication of the rate, inventory, and reservation delivery.
- Building **Flask** APIs, and seamless integration with **MongoDB** and web applications to produce predictive insights.
- Working knowledge in **Linux** shell environments using command line utilities.

TECHNICAL SKILLS

- **Languages** : Python, SQL, Bash, C, C++.
- **Deep Learning Frameworks** : Tensorflow, Keras, Pytorch, fastai
- **Data Science** : Computer Vision, Deep Learning, Time Series Forecasting, Simulation Analytics.
- **Web Technologies** : HTML5, CSS, REST, FLASK.
- **Databases** : MySQL, MongoDB.

CERTIFICATIONS

- **Deep Learning Specialization - deeplearning.ai**
- **Machine Learning – Stanford University**

ACADEMIC PROJECTS

Malware Classification **Sept 2021**

- Prediction of malware type using machine learning and NLP algorithms.
- Pre-processing data using feature selection, dimensionality reduction and Asm2vec.
- Modelling using Logistic regression, Random Forest and XGBoost. Achieved accuracy of 98%.

Border Breach Detection **May 2018**

- Detecting a human breach and autonomously panning the weapon/camera to ROI of the breach.
- The whole detection system was built in OpenCV using haar cascade. Built a control system using Arduino and Servo motors for panning the camera in a three-dimensional space.

eYantra – Model a Terrain **May 2017**

- Finalist in a National Level Robotics Competition – Autonomously Developed the topography of the extra-terrestrial resemblance arena.
- The bot traverses, senses, and sends the data to the system, rendering details about the obstacles for coordinates.
- The arena is 3D-Modelled in Blender Animation Tool and Blender Game Engine.