Suhas Maddali

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GitHub | LinkedIn | Medium
YouTube

EDUCATION

Northeastern University, Boston, MA   **Sept. 2021 - Present**
Khoury College of Computer Sciences
Candidate *for Master of Science in Data Science*
Related Courses: Supervised Machine Learning Theory, Unsupervised Machine Learning, Natural Language Processing (NLP)
VNR Vignana Jyothi Institute of Technology, Hyderabad, India   **June 2015 - May 2019**
Bachelor of Technology in Electronics and Communication Engineering

TECHNICAL KNOWLEDGE

Programming Languages:	Python, R, SQL, Java, C, Matlab, MongoDB
Libraries:	Sklearn, SciPy, NumPy, Pandas, Keras, Tensorflow, Xgboost, Pytorch, Seaborn, Matplotlib
Tools Used:	Git, HTML5, CSS3, Tableau, AWS, Scala, Spark, Bootstrap, Hadoop, Office, PowerPoint
Certifications:	Machine Learning by Stanford University, Python, Deep Learning Specialization
	by Andrew Ng, Data Science Bootcamp with R, Complete Tensorflow 2 and Keras

PROFESSIONAL EXPERIENCE

Data Scientist | NVIDIA, Santa Clara, USA   **May. 2022 – Aug. 2022**
- Built robust **machine learning** and **deep learning models** for predicting the demand and supply constraints.
- Collaborated with many **data scientists** and **machine learning engineers** to build an **end-to-end machine learning system** that has stages from data extraction to deployment of models along with monitoring of the output.
- Worked exclusively on building models that are highly **explainable** to the users and the business before taking decisions.
- Documented and highlighted the **weaknesses** and **strengths** of various state-of-the-art deep learning and machine learning models along with their practical implementation to the business.
- Reduced the **Mean Absolute Percentage Error (MAPE)** by **15%** as compared to models by **Amazon** and **SAP**.

Research Assistant | Khoury College of Computer Sciences, Boston, USA   **Jan. 2022 - Present**
- Handled **Neural Networks (NNs)** for systems and analyzed their behavior and verified them for use.
- Implemented state-of-the-art **NN-verification** tools and built certified neural networks for computer systems.

Graduate Teaching Assistant | Khoury College of Computer Sciences, Boston, USA **Dec. 2021 – Present**
- Assisted in coordinating college-wide **staff meetings** and **assemblies** for students.
- Supported each student's **social** and **emotional** development and encouraged them to pursue their curiosity and interests.

Data Scientist | Solbots Technologies Private Limited, Hyderabad, India   **Jan. 2018 - Dec. 2018**
- Developed **Statistical Analysis** and **Statistical Modelling** Using Python to understand grip of bionic hand.
- Executed computer vision algorithms for image segmentation and recognition using **OpenCV** and **Matplotlib**.
- Oversaw my team in applying data analysis, data engineering and data mining methods for computer vision.
- Built a **fully functional** application that extracts information from an image and classifies the objects present in the scene.

PROJECTS

Washington Bike Demand Predictor   **Feb. 2021 - Apr.2021**
- Performed **Exploratory Data Analysis** in **Python** and innovatively added 8 new features to large, complex dataset for prediction of bike demand and explored the features.
- Employed Machine Learning Models such as **Deep Neural Networks**, K Nearest Neighbors, PLS Regression, Decision Tree, SVM, Clustering, Gradient Boosting Regression (Xgboost) and Logistic Regression. Link

Wheat Disease Detection Using CNNs and Transfer Learning   **Dec.2021 – Jan.2022**
- Programmed with networks such as **VGG19**, **Xception**, **InceptionV3** and **ResNet152** to predict the diseases in wheat.
- Achieved an accuracy of **97 percent** on the cross-validation data of images of wheat. Link

Predicting the Readability of Text Using Machine Learning   **Sep.2020 – Dec.2020**
- Analyzed text embedding such as **BOW**, **TF-IDF**, **Word2Vec**, **BERT** and **Roberta** for text analysis.
- Achieved a **mean absolute error** of 27 for prediction of readability of text. Link

Twitter Sentiment Analysis   **May.2020 – Aug.2020**
- Analyzed the sentiment of **27481** data text points and made predictions on **3000** test points.
- Performed **text encoding**, **parsing**, **semantic analysis**, **discourse integration** and **pragmatic analysis**. Link

Car Prices Prediction and Analysis   **Jan.2020 – Feb.2020**
- Predicted car prices by considering factors such as Horse Power, MPG, Vehicle Size, Transmission and Popularity.
- Accomplished a **mean absolute error (MAE)** of **3327** for the test data. Link