# **Suhas Maddali**

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#### TECHNICAL SKILLS

**Programming Languages:** Python, R, SQL, C++, Java, C, MATLAB, MongoDB,

**Libraries:** Sklearn, NumPy, Keras, TensorFlow, Pytorch, Seaborn, TensorFlow Extended (TFX) **Tools Used:** Docker, Kubernetes, AWS, Google Cloud, Spark, Rapids, Git, Tableau, Scala, Hadoop

**Certifications:** Machine Learning by Stanford University, Deep Learning Specialization by

Andrew Ng, Machine Learning Engineering for Production (MLOps) Specialization, Data Science and Machine Learning Bootcamp with R

## PROFESSIONAL EXPERIENCE

## Data Scientist Intern | 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 **state-of-the-art** models.

### Research Assistant | Khoury College of Computer Sciences, Boston, USA

Jan. 2022 – May 2022

- 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 – May 2022

- 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 – Aug. 2020

- Developed Statistical Analysis and Statistical Modelling using Python to understand the 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**

- 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.

### Wheat Disease Detection Using CNNs and Transfer Learning

- 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.

## Predicting the Readability of Text Using Machine Learning

- 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.

### **Twitter Sentiment Analysis**

- 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.

### **Car Prices Prediction and Analysis**

- Predicted car prices by considering factors such as Horsepower, MPG, Vehicle Size, Transmission and Popularity.
- Accomplished a mean absolute error (MAE) of 3327 for the test data.

### **EDUCATION**

Northeastern University, Boston, MA

Sept. 2021 – May 2023

### **Khoury College of Computer Sciences**

Master of Science in Data Science

**Expert In:** Supervised Machine Learning, Natural Language Processing (NLP), Computer Vision, Unsupervised Machine Learning **Arizona State University**, Tempe, AZ

Sept. 2020 - May 2021