

# Suhas Maddali

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[GitHub](#) | [LinkedIn](#) | [Medium](#)

## TECHNICAL SKILLS

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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:	<a href="#">Machine Learning by Stanford University</a> , <a href="#">Deep Learning Specialization by Andrew Ng</a> , <a href="#">Machine Learning Engineering for Production (MLOps) Specialization</a> , <a href="#">Data Science and Machine Learning Bootcamp with R</a>

## PROFESSIONAL EXPERIENCE

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<b>Data Scientist Intern</b>   NVIDIA, Santa Clara, USA	<b>May 2022 – Aug. 2022</b>
<ul style="list-style-type: none"><li>Built robust <b>machine learning</b> and <b>deep learning models</b> for predicting the demand and supply constraints.</li><li>Collaborated with many <b>data scientists</b> and <b>machine learning engineers</b> to build an <b>end-to-end machine learning system</b> that has stages from data extraction to deployment of models along with monitoring of the output.</li><li>Worked exclusively on building models that are highly <b>explainable</b> to the users and the business before taking decisions.</li><li>Documented and highlighted the <b>weaknesses</b> and <b>strengths</b> of various state-of-the-art deep learning and machine learning models along with their practical implementation to the business.</li><li>Reduced the <b>Mean Absolute Percentage Error (MAPE)</b> by <b>15%</b> as compared to <b>state-of-the-art</b> models.</li></ul>	
<b>Research Assistant</b>   Khoury College of Computer Sciences, Boston, USA	<b>Jan. 2022 – May 2022</b>
<ul style="list-style-type: none"><li>Handled <b>Neural Networks (NNs)</b> for systems and analyzed their behavior and verified them for use.</li><li>Implemented state-of-the-art <b>NN-verification</b> tools and built certified neural networks for computer systems.</li></ul>	
<b>Graduate Teaching Assistant</b>   Khoury College of Computer Sciences, Boston, USA	<b>Dec. 2021 – May 2022</b>
<ul style="list-style-type: none"><li>Assisted in coordinating college-wide <b>staff meetings</b> and <b>assemblies</b> for students.</li><li>Supported each student's <b>social</b> and <b>emotional</b> development and encouraged them to pursue their curiosity and interests.</li></ul>	
<b>Data Scientist</b>   Solbots Technologies, Hyderabad, India	<b>Jan. 2018 – Aug. 2020</b>
<ul style="list-style-type: none"><li>Developed <b>Statistical Analysis</b> and <b>Statistical Modelling</b> using Python to understand the grip of bionic hand.</li><li>Executed computer vision algorithms for image segmentation and recognition using <b>OpenCV</b> and <b>Matplotlib</b>.</li><li>Oversaw my team in applying data analysis, data engineering and data mining methods for computer vision.</li><li>Built a <b>fully functional</b> application that extracts information from an image and classifies the objects present in the scene.</li></ul>	

## 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

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<b>Northeastern University</b> , Boston, MA	<b>Sept. 2021 – May 2023</b>
<b>Khoury College of Computer Sciences</b>	
<i>Master of Science in Data Science</i>	
<b>Expert In:</b> Supervised Machine Learning, Natural Language Processing (NLP), Computer Vision, Unsupervised Machine Learning	
<b>Arizona State University</b> , Tempe, AZ	<b>Sept. 2020 - May 2021</b>
<i>Master of Science in Software Engineering</i>	