MADHUSUDHAN REDDY SHAGAM

San Jose, California | madhusudhan.shagam@sjsu.edu | +16693503568 | LinkedIn | GitHub

Summary

- Strong programming and algorithmic skills in Python/C++/JavaScript.
- Good knowledge of Neural Networks/Deep Learning Frameworks (TensorFlow, Keras, Scikit-Learn), SVM, Random Forest, Regularization, Ensemble Models.
- Good experience in building predictive Machine Learning models using Linear, Logistic Regression.
- Proficient level skills in relational databases-SQL and NoSQL – MongoDB.
- Experienced(1+years) in Data Analysis, Visualization and Large-Scale Data Mining.

Education

Master's in Computer Engineering **Aug'18 - May'20 (expected)**

San Jose State University, San Jose, CA – 95192 GPA – 4.0

Relevant Coursework: Machine Learning, Data Mining, Large Scale Analytics, Enterprise Distributed Systems,

Bachelor of Technology: **Sept 2012 - May 2016**

JNTU, Hyderabad, India

Relevant Coursework: Data Structures and Algorithms, Object Oriented Programming, Operating Systems, Database Management.

Languages and Technologies

Programming Lang & web Tech : C, C++, Java, JavaScript, Python, Bootstrap, RESTful APIs, HTML, CSS

Skills : Machine Learning, Deep Learning, Convolution Neural Networks, RNN, Feature Engineering, Feature Transformation, Regularization, Computer Vision, Pandas, NumPy, Matplotlib, Seaborn.

Algorithms : Linear regression, Logistic regression, support vector machines, Decision Trees, Ensemble techniques, Gradient Boosting, XGBoost, Random forest, K Means, KNN

frameworks : Keras, TensorFlow, Scikit-Learn, React.js, Redux, Node.js

Databases : MySQL, MongoDB

Cloud Platforms : Amazon AWS

Other : Git, Eclipse, JMeter, Junit

Work Experience

Infosys **Hyderabad, India**

System Engineer *Jul'16 - Jun'18*

- Worked on ETL domain performing Data preprocessing and analysis methods.
- Also worked on SAP Tool on Material Management aspect.
- Improved Business Value Add by 15%, implementing Automation over various report generation.
- Provided over 20+ Root Cause Analysis for bug fixes and saved 1-month effective man utilization for Business.
- Worked on multiple critical errors, which added healthy relationship with our Team.

CreativeXperts Consulting Pvt. Ltd. **Hyderabad, India**

Software engineering Intern *May'15 - July'15*

- Part of the R&D team which was working on building a segmentation machine learning model using unsupervised learning, where my contribution was preparing data by writing SQL Queries and transforming it for Exploratory Data Analysis.
- Developed and tested ETL pipelines for data migration and transformation for different relational databases.

Academic Projects

Image Captioning with Voice using Convolution Neural Networks with Keras Framework:

- Model that generates audio descriptions of images and their regions. Our approach Flickr datasets of images and their descriptions to learn inter-modal correspondences between visual data and language.
- Algorithm implemented based on Convolution Neural Networks over image regions, Recurrent Neural Networks over image descriptions and multimodal embedding that aligns both modalities.
- Working on Continuous video description using Computer Vision.

G-Store Merchandise Revenue Prediction:

- Algorithm implemented to predict G-Store Revenue prediction for particular user based on large Dataset of users provided in Kaggle.
- Performed Data Preprocessing using Pandas and implemented using gradient boosting regressor.

Car Detection using YOLO Algorithm:

- Implemented object detection as a regression problem to spatially separated bounding boxes and associated class probabilities.
- Implemented using Keras and TensorFlow framework and also using Non-Max suppression.
- Acquired good accuracy of detecting multiple cars in a single frame.

Face Emotion Recognition using Convolution Neural Networks:

- Algorithm, which is implemented to detect 7 different face emotions such as happy, sad, angry, disgust, neutral, fear, surprise
- Model is built using Keras framework and trained using Kaggle data set of happy house.
- Acquired accuracy of 76% over test data and 83% over trained data.

American Sign Language Translation using Convolution Neural Networks:

- Image Recognition Algorithm, which can predict Hand sign with 85% Accuracy.
- Implemented using Convolution Neural Networks and Tensor Flow.

Crime Data Analysis of San Francisco:

- Analysis of Crime Calls of San Francisco based on Dataset of Police Department from Kaggle.
- Also, found new correlation between some specific crime calls and weather conditions
- Visualized complete analysis using Matplotlib and Seaborn.