# **Piyush Mittal**

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Certified Coursera deeppLearning.ai (Prof. Andrew NG) – Neural Networks and Deep Learning, Convolutional Neural Networks Data Scientist with strong technical skills. Seeking full-time opportunity to contribute my statistical & analytical skills. Experienced at Feature Engineering, creating Regression and Classification models, Exploratory Data Analysis to deliver actionable insights.

#### **EDUCATION**

Graduate Teaching Assistant
Master of Science, Business Analytics
The University of Texas at Dallas, Richardson, US

GPA 3.81 Dec 2019

Bachelor of Engineering, Chemical Engineering
Birla Institute of Technology & Science Pilani, Pilani Campus, India

GPA 3.0 Jun 2014

#### **TECHNICAL SKILLS**

Framework & Tools: Tensorflow, Keras, Facenet, Inception, ResNet, Spark, Tableau

Languages: SQL, Python, R, SAS, Hive, Impala, Sqoop, Flume, javscript, shiny, ggplot, Scala

Databases: Hadoop Distributed File System, MySQL.

Concepts: Statistics, Regression, Clustering, Classification, Logistic Regression, SVM, Regularization, PCA, Ensembles, Time series modeling, Deep Neural Networks, CNN, YOLO, Object Localization, RNN, GANS, Big Data, A/B Testing, Collaborative Filtering.

## **WORK EXPERIENCE**

## Ericsson, Plano, Texas - Data Science Intern

May 2019 - Present

- Improved tier 1 capability to handle 15-20% tier 2 request. Developed NLP based flask application for Incident Resolution.
   Converted raw unstructured log files to structured data and extracted actionable steps using stop word removal, tokenization, segmentation, tf-idf to recommend actions.
- Enhanced model accuracy by 4%. Used predicted KPI's for network capacity planning to meet potential increase in user equipment's. Hyper-tuned parameters and compared RMSE of different regression models and TensorFlow based Deep Neural Network. Got RMSE of 7.28 after applying batch normalization and reduced overfitting using callback function via monitoring validation loss.
- Increased forecast accuracy of project scheduling by 30% for Project Management teams. Used statistical measures to predict site level actualization.
- Performed exploratory data analysis, feature engineering & geo segmentation using Radio Frequency features. Analyzed 20% increase in successful connection during midnight and provided insights on cross-operator performance.

## The University of Texas at Dallas, Richardson, Texas, United Sates:

Jan 2019 – May 2019

Graduate Teaching Assistant for Applied Machine Learning, Advance Business Analytics with R & OOP in Python

- Assisted class of 60 students for Shiny development in R.
- Mentored 30 students on Support Vector Machines and Recurrent Neural Networks.

# Oral B Advantage Market Share & Size Analysis

- Created visualization in Tableau to analyze product. Identified Oral B having highest market share of 29% in terms of sales followed by Colgate (21%) and Reach (13%).
- Applied fixed effects regression model by rejecting null hypothesis of Hausman Test and identified features with significant impact on sales.
- RFM analysis resulted 3 clusters of profitable customers who are likely to respond to promotions buy product.

# **Speech Recognition:**

- Trained a RNN model with test accuracy of 94% to identify word in audio.
- Created Restaurant locator bot that identifies nearby eatery places based on words and intent in user voice command.

#### **Face Recognition:**

- Preprocessed labelled user images via cropping & aligning faces via MTCNN.
- Created face embeddings for dataset and used pretrained FaceNet model.
- Applied one-shot learning using Siamese networks to identify if the target face matches to database.

Eligibility: Eligible to work in the U.S. for internships and for full-time employment for 36 months without sponsorship.