# Vishva Shah

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## **EDUCATION**

#### University of Illinois at Chicago (Stem University)

Expected Dec 20

- Master's of Science in Business Analytics, Major - Data Science

GPA: 3.87

- Courses: Deep Learning, Data Mining, Database Management, Advanced Statistics

#### Institute and Faculty of Actuaries (UK)

Apr 2014-Apr 2018

- Actuarial Science: 9 papers cleared

- Major Courses: Probability and Statistical Distribution, financial Mathematics

#### University of Mumbai

Apr 2013-Nov 2019

- Master and Bachelor in Commerce and Economics

85.5%

#### SKILLS

Coding Python, R, AWS, Pyspark, Tableau, VBA, MySQL, Git, Overleaf, LATEX, Microsoft Office

Machine Learning Data Mining, Predictive analytics, Cluster analysis, Deep Neural Networks, GANs,

NLP, Ensemble methods (Random forest, gradient boosting), SVM, KNN

Statistics Markov chain, Regression, Confidence-intervals, Monte-carlo, Time series

Certifications Udacity AWS Machine Learning

# ACADEMIC PROJECTS

#### Image Classification on FER 2013 [GitHub Repo]

Spring 2020

Created an image classifying model using Pytorch, Scikit-Learn, NumPy, SciPy, Pandas, Pickle, NLTK, OpenCV

- Experimented models for transfer learning to include Alexnet, VGG16, GoogleNet, and Resnet. The fusion model using VGG16 and Resnet50 resulted in highest accuracy of  $\sim 85\%$
- Data augmentation performed by transforming images by rotating, mirroring, cropping, and padding which increased training data and hence reduced overfitting
- Enhanced the accuracy to  $\sim$ 89% after appropriate tuning of hyper-parameters and error analysis using confusion matrix

#### Manipal Hospital Harvard business review Case study [GitHub Repo]

Fall 2019

Developed supervised models for NPS score using ggplot2, rpart, randomforest, GBM, ROCR, Caret

- Data pre-processing performed by removal of redundant columns and imputation of missing values
- Designed stacked ensemble models architecture using Random forest and Gradient boosting, after feature extraction using PCA and SMOTE to balance data
- Evaluated model by tuning parameters using K-fold validation, confusion matrix, ROC curve and final test accuracy was approximated to be  ${\sim}88.5\%$

## WORK EXPERIENCE

# University of Illinois at Chicago

Summer 2020

Summer Research Project Assistant

- Parallelized extraction using map-reduce algorithm and anomaly detection using RNN and speed up the process by  ${\sim}65\%$
- Conducted data pre-processing using Spacy, NLTK for tokenization, chunking, POS tags and removal of stopwords
- Designed a bi-directional LSTM to experiment with dataset and evaluated using F1-score which resulted in  $\sim 50\%$  better accuracy than previously designed models

# ICICI Prudential Life Insurance Company Ltd.

Jan 2018 - July 2018

Actuarial Data Analyst - Manager II

- Utilized data mining techniques to develop forecasting models after EDA and statistical tests resulting in  $\sim 85\%$  accuracy thereby enhancing sales
- Optimized the visual data with creation of real-time dashboards that enhanced and automated overall sales team performance
- Led the team for the annual risk note including statistical results and info graphics like histograms, heat-map

# Reliance Nippon Life Insurance Company Ltd.

Nov 2016 - Jan 2018

Actuarial Data Analytics Consultant

- Rendered assistance in business development projects by developing mathematical models for forecasting
- Improvised on a healthcare product pricing model after feature extraction resulting in an increase of  $\sim 35\%$  compared to the previous model
- Automated the procedure of extracting the results using VBA and speed up the process by  $\sim 50\%$

## Extra Curriculum

Volunteer of National Service Scheme Organized Blood Donation Drives. Head of the golden jubilee fest Part of the Rotaract Club of Narsee Monjee College Visiting Orphanages, cleanliness projects, amongst others