



Vishva Shah

shah.vishva5@gmail.com 773-790-7379 Chicago, USA

<https://vishva-shahh.github.io/> | <https://github.com/Vishva-Shahh> | <https://www.linkedin.com/in/vishva-shah-0201/>

Education

Master of Science in Business Analytics (STEM) , University of Illinois at Chicago, GPA: 3.87/4.0	Aug 2019 - May 2021
Professional Degree in Actuarial Science , Society of Actuaries (USA) and IFOA (UK)	Apr 2014 - Apr 2018
Master of Commerce & Economics , University of Mumbai (India)	Apr 2018 - Dec 2020
Bachelor of Commerce & Economics , University of Mumbai (India)	Apr 2013 - Apr 2016

Work Experience

Graduate Assistant Data Science Research UIC Claris Health	Aug 2020 - Present
<ul style="list-style-type: none">Detected fraud in opioids oversupply in pharmacy data by building Auto-encoders and PCA, eventually saving over ~\$10 million in claims.Architected deep learning LSTM algorithm, for finding patterns and anomaly detection over periods of time to mitigate claim risk by ~25%.Crafted a Fraud, Waste & Abuse detection system for healthcare data preventing risk of fraud and presenting measures to mitigate risk.	
Actuarial Data Analyst ICICI Prudential Life Insurance Company Ltd	Jan 2018 - July 2018
<ul style="list-style-type: none">Built predictive models by applying time series to predict likelihood of an opportunity to convert from early sales, giving ~89% accuracy.Optimized dashboards for the segmentation of customers to target marketing strategies thereby increasing sales by \$8 million.Led a team of 5 in detailing the projections and writing detailed reports outlining potential sources of risk and financial uncertainty.	
Actuarial Data Analytics Consultant Reliance Nippon Life Insurance Company Ltd	Nov 2016 - Jan 2018
<ul style="list-style-type: none">Devised cluster analysis with K-means to generate profiles of customers with 350K rows of claims data, increasing sales by ~20%.Automated the procedure of extracting massive amounts of results using VBA thereby speeding up the process by ~70%.Initialized mathematical models for financial predictions, cost-benefit analyses and risk projections which assisted in hedging strategies.	

Projects

Generative Adversarial Networks [GitHub repo]	May 2020 - June 2020
<ul style="list-style-type: none">Experimented Amazon's deepcomposer AI frameworks on the unique image data set of over 1000 images on a GPU/CUDA processor.Custom built end-to-end GAN architecture, used binary cross entropy loss function, tuned hyper-parameter to achieved recall of ~90%.	
Image classification and captioning using LSTM [GitHub repo]	Mar 2020 - Apr 2020
<ul style="list-style-type: none">Performed data augmentation (Rotating, Flipping, Mirroring, Cropping) increasing training data by ~35% and reduced overfitting by ~25%.Generated output for the pretrained model VGG16 as encoder and transferred it as an input to the decoder LSTM to generate captions.Deployed the model on cloud-based app, Heroku, Unicorn and flask, in addition to real-time user experience with the model.	
Variational Auto-Encoders [GitHub repo]	Feb 2020 - Mar 2020
<ul style="list-style-type: none">Built a VAE model to generate similar images from dataset, used to increase training data, ELBO loss as optimizer.Tuning of hyper-parameters (Batch size, Learning Rate, Momentum) by trial and error and increased training images by ~30%.	
Manipal Hospital Harvard business review Case study [GitHub repo]	Sept 2019 - Nov 2019
<ul style="list-style-type: none">Conducted data exploration using statistical measures, imputed ~90% missing values, used SMOTE to increase minority labels by ~40%.Coded stacked ensembles, random forest and xgboost, tuned hyper-parameters with K-fold, confusion matrix resulting F1 score of ~87%, visualized AUC/ROC curve.	

Extra Curriculars and Leadership Experience

Statistical concepts - Numerical measures , Data types , Probability Distributions
<ul style="list-style-type: none">Proactively conveyed technical aspects of statistical modelling concepts by writing in a detailed manner to ease understanding.
Effects of Social Media - Summary of Social Dilemma , Data Privacy
<ul style="list-style-type: none">Influencing the mindset by laying out the cons of the most used services and communicated measures to remedy the underlying issues.
Business Analytics Organization - UIC
<ul style="list-style-type: none">Board of Director responsible to organize events for enhancement of skills and engagement between students.

Skills and Competencies

Language & Tools	Python, R, PostgreSQL, PySpark, Hadoop, Tableau, AWS, MapReduce, Git
Data Science Libraries	Scikit-Learn, NumPy, SciPy, Pandas, Pickle, MLlib, OpenCV, ggplot2, rpart, randomforests, GBM, ROCR, Caret.
Machine Learning	Neural Networks (CNN, RNN-LSTM, GAN), Unsupervised Learning (Clustering, PCA), Regression (Linear, Logistics, Lasso, Ridge), Classification algorithms (SVM, K-NN, Decision Trees), Generative Algorithms (Naïve Bayes, LDA).
Soft Skills	Detail-oriented, In-born leader, Collaboration, Proficient communication, Problem-Solving, Goal setting.