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# Viral Pandey

Available: May - Aug 2020 | Sunnyvale, CA - 94086

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## EDUCATION

### Northeastern University, Boston, MA

Sep 2018 - Present

*Khoury College of Computer Sciences | Master of Science in Data Science | GPA: 3.867/4.0*

*Expected Dec 2020*

**Teaching Assistant:** CS 6140 Machine Learning (Summer 2019), DS 5110 Data Management and Processing (Spring 2019)

**Relevant Coursework:** Causality in Machine Learning, Supervised Machine Learning, Foundations of Artificial Intelligence, Algorithms, Data Management and Processing

### Dhirubhai Ambani Institute of Information and Communication Technology, India

Aug 2014 - May 2018

*Bachelor of Technology in Information and Communication Technology*

**Relevant Coursework:** Selected Topics in Neural Networks, Database Management System, Stochastic Simulation, Models of Computation, Object Oriented Programming, Data Structures

## TECHNICAL KNOWLEDGE

- **Languages:** Python, R, SQL, Java, MATLAB, C, C++
- **Libraries:** Pandas, Scikit-Learn, TensorFlow, Keras, Matplotlib, Numpy, Pytorch, Pyro, OpenCV
- **Databases:** MySQL, Postgres, SQL Server
- **Technologies:** Google Cloud Platform, GitHub, IntelliJ, Visual Studio, PGAdmin, Hive, RStudio, Jupyter, Google Colab

## WORK EXPERIENCE

### Tesla, Inc., Palo Alto, CA

Aug 2019 - Present

*Data Scientist Intern*

- Work closely with the Charging Data and Modeling team to support cost down efforts by gathering insights on Suprercargers and rest of the EV infrastructure usage around the world, improve customer experience, mitigate congestion and optimize infrastructure deployment with the help of statistical modeling, supervised and unsupervised learning

### MCADS Lab, Boston, MA

Jul 2019

*Research Assistant, Advisor: Dr. Ehsan Elhamifar*

- Worked on the problem of learning grammar of complex tasks using a collection of unconstrained instructional videos
- Developed methods based on structured subset selection that produces a compact summary of the procedure steps and their ordering needed to perform a complex task, as well as localization of the procedure steps in videos

### Dhirubhai Ambani Institute of Information and Communication Technology, India

Jan - Apr 2018

*Data Science Research Intern*

- Researched on various deep learning techniques and neural networks to develop a Recurrent Convolutional Neural Network (RCNN) based predictive model by combining CNN with LSTM that warns a driver when the car is going to breakdown
- Designed this model to forecast remaining useful life of a jet engine based on NASA's time series dataset

### Infoware, India

May - July 2017

*Data Engineering Intern*

- Implemented Hadoop infrastructure and used Hive on historical data of client's customers across different sales channels

## PROJECTS

### Quora Insincere Question Classification

Jan - Mar 2019

- Analyzed Quora question text dataset to detect insincere content using binary classification
- Compared performances of SVM, CNN and LSTM RNN for classifying
- Performed TF-IDF vectorization, Sentiment Analysis using Python NLTK framework for gauging overall sentiment

### Bankruptcy Prediction Using Various Classifiers

Jan - Mar 2019

- Analyzed 5 years of Polish Companies Dataset, containing 64 econometric ratios and bankruptcy labels
- Handled missing data using Mean value Imputation and SMOTE on training data to handle class imbalance
- Calculated Correlation matrix, performed PCA and cross validation for feature sub-setting
- Fit Logistic Regression, Naive Bayes, LDA, QDA, SVM and feed forward Neural Networks to compare various classification techniques

### Analysis of NHIS data and building associated software components

Nov - Dec 2018

- Developed a R package, performed exploratory data analysis to find correlation between different variables
- Developed a conversational chat bot which can show the analysis as visualizations using Node.js, R, Dialogflow and AmazonS3Services

## ADDITIONAL EXPERIENCE

- Participated in multiple hackathons like **IBM - State Street Hackathon** and **AT&T Entertainment Hackathon** to develop apps using technologies like IBM Watson Vision Recognition, Node-RED, Azure Face API, Heroku and Spotify API