

# JASPREET SINGH

## APPRENTICE LEADER MU SIGMA BUSINESS SOLUTIONS PVT. LTD.

### SUMMARY

A firm believer in learning over knowing and extreme experimentation  
I am passionate about working on ideas that are innovative and impactful

### WORK EXPERIENCE

DEC 2018-TILL DATE

#### Random Forest Based Production Halts Reduction

- Assisted an aluminum conglomerate to reduce unplanned maintenance shutdown, production halts and improve equipment life cycle
- Proposed Random Forest based predictive solution lead to operational savings of over \$30MM annually in production deferral costs
- Tech Stack Used: Python, Tableau, Scikit-Learn, Tensorboard, Azure DataBricks

#### Neural Networks Based Demand Forecasting

- One of the leader in asian retail industry wanted to improve their demand forecasting framework to reduce Out of Stock occurrences
- Developed Recurrent Neural Network (RNN) based demand forecast model to achieve weekly demand forecasting at Product-Store level
- Reduced Out of Stock occurrences by 6%-20% (for various categories-SKUs), compared to per-existing predictions
- Tech Stack Used: Alteryx, Python, Keras and TensorBoard

#### Early Trends Detector

- Eliminated sourcing & procurement team's invisibility to unseen trends
- Developed Natural Language Processing based model lead to 3 fold decrease in Out-of-Stock scenarios
- Transformed solution was adopted by clients as their official banner product for 2019 Black Friday Sale
- Tech Stack Used: Python, NLTK, Tableau

### SKILLS

#### Machine Learning:

Linear Regression, Logistic Regression, SVM, KNN, Decision Tree & Random Forest, Ensemble Models, Clustering

#### Deep Learning:

Neural Network, Convolutional Neural Network, Natural Language Processing

#### Tools:

Pandas, Numpy, Matplotlib, Seaborn, scikit-learn, ARIMA, Prophet, TensorFlow, Keras, NLTK, OpenCV, Yolo V3, Git, Databricks, Datarobot, Azure Taskboard, IBM Blue Works, PowerBI

#### Deployment:

VS Code, Flask, Azure Databricks, Azure Datalake & GCP Docker

#### Misc:

Git, GitHub, Probability, Python, SQL, Statistics

### EDUCATION

Bachelor of Technology in Computer Science & Engineering

Lovely Professional University

Class XII-CBSE | Natwar Gov Multipurpose School

Class X-ICSE | Carmel Convent Senior Secondary School

### CONTACT INFORMATION

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### HOBBY PROJECTS

JusPy: ML Framework

`pip install juspy`

Emoji Recommender

<http://emoji.juspreet51.in>

Student Loan Default Prediction

<http://student-default-preds.juspreet51.in>

Campaign Analysis

<http://campaign-analytics.juspreet51.in>

### Awards & Accomplishments

Published paper: Information Theory in Machine Learning

<http://paper2.juspreet51.in>

Developed ML Algorithms From Scratch

Implemented Regression and Classification algorithms from scratch in python

Andrew Ng's team coordinator

Coordinated meetups and QnA session with DeepLearning.AI team

Sport Award: Mu Sigma, Sept 2021

For excellent work in delivery & team management

### RELEVANT COURSEWORK

HoML 2nd Edition:

Hands on Machine Learning authored by Aurelien Geron

Multivariate Calculus:

A calculus book Authored by James Stewart

Machine Learning:

Andrew Ng's Coursera course

NLP Specialization:

Ongoing: Course 3 of 5 courses specialization by DeepLearning.AI

### FUTURE ENDEAVORS

The Deep Learning:

A book by Ian Goodfellow, also called as Bible of Deep Learning

[blog.juspreet51.in](http://blog.juspreet51.in):

A not-for profit effort to bring zero cost information for public

### INTEREST

Reading:

Philosophy and Literature

Blogging:

Artificial Intelligence and Machine Learning

Sports:

Boxing and Minecraft