

# 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

#### Computer Vision & Deep Learning Based Brick & Mortar Customer Analysis

- Understanding offline customer's behavior patterns to make better decisions in store operations (staff management, product placements, etc)
- Implemented in-store video analytics solution using Single shot multibox detector (SSD) based YOLO V3 solution
- Delivered hour level data about customer entry, exit & in-store count, number of aisle visits, traditional checkout counter count, Scan-&-Go counters encouragement and others
- Tech Stack Used: Python, YOLO v3, OpenCv

#### Natural Language Processing Based 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:

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

#### 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

+91-978095-3556 +91-860271-3556

contact@juspreet51.in

blog.juspreet51.in

linkedin.juspreet51.in

github.juspreet51.in

Bangalore, KA - 560066

### 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:**

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