# SHOUVIK SHARMA



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#### EDUCATION

Illinois Institute of Technology Chicago • 2019 - 2021

#### Master of Data Science

GPA - 3.88/4.0

NMIMS University Mumbai • 2016 - 2018

## Master of Statistics

• GPA - 3.35/4.0

#### SKILLS

Data Science | Analytics: Linear Regression, Multiple Regression, Logistic Regression, Naïve-Bayes, KNN, Time Series Analysis, AdaBoost, Ensemble classifier, ML Techniques, K-Means Clustering, Hierarchical Clustering, SAS Enterprise Miner, SAS Enterprise Guide, SPSS

Languages: Python, R, Spark, Hive, Pig, MapReduce, other Big data technologies

**Linear Algebra | Statistics:** Z-test, ANOVA, Chi-square test, Mathematics

Certifications: SAS Certified Base Programmer for SAS 9 in Mar 2017, SAS Certified Predictive Modeler Using SAS Enterprise Miner 14 in Apr 2018, Practical Machine Learning in Dec 2018 from John Hopkins University, Machine Learning Specialization in Feb 2019 from University of Washington, Snowflake Pro Certification September 2020

Deep Learning: Convolution Neural Network, Recurrent Neural Network, Long Short-Term Memory Network

Cloud: AWS Lambda, AWS S3, AWS EC2, AWS CLI, Kafka, Redshift, AWS Sage Maker, Azure Data Factory, AWS DynamoDB, AWS CLI, AWS VPC, AWS ELB, AWS EBS, AWS AMI

**Databases:** SQL Server, Snowflake, PostgreSQL, MSSQL, Microsoft Visual Studio, Visual Basic, Pentaho

Data Visualization: Tableau, R shiny, Power BI

Presentation: Prezi Professional (3D PPT)

• Stack Overflow Data Analysis (October 2019 - December 2019) (Spark, Hive, Spark, Big Data Technologies)

Analyzed insights about questions posted on stack overflow by extracting large data sets using Google's big query data warehouse; discovered top spammers, expert users, and most valuable customers users by leveraging big data technologies such as Apache Hive, Apache Pig and Apache Sparks Created final project report using Microsoft word utilizing functionalities like inserting headers, page breaks, page numbers and tables and, adjusting table columns.

Recommendation System using Yelp (January 2020 - March 2020) (Spark, Hive, Spark, Big Data Technologies)

Extracted the Yelp dataset using web scraping from the Yelp website, further validated the dataset using Microsoft Excel by using Vlookup, Hlookup, Index, Match and SUM Function. Built a personalized restaurant recommender web app using the Yelp dataset of restaurants by testing models like Pure Collaborative, Approximate Nearest Neighbour, K-NN, Naive Bayes and Hybrid Matrix Factorization on different hyperparameters which were tuned using the python library scikit optimizer. Created Final presentation of the project by using Microsoft Powerpoint by using functionalities like applying a theme, formatting character spacing, inserting a picture, changing slide layout and theme colors, adding transitions, customizing slide numbers, changing chart style and/or formatting font

Image Mating using CelebAMask-HQ (June 2019 - July 2019) (Python, Jupyter Notebookl UNET Architecture)

Conducted Image Matting using the U-Net architecture of the Convoluted Neural Networks on the open-source Celeb-Mask dataset with an IOU Score of 92%

- Inventory Optimization problem on Kaggle (January 2019 February 2019) (R Studio)
   Forecasted the demand for LED televisions using Holt-Winter's Smoothing method with MAPE of 20.760
- Book Recommendations from Charles Darwin (July 2020 August 2020) (Python)
   Designed a book recommendation system based on the content utilizing the open-source Charles
   Darwin's bibliography using the data mining techniques and quantitative methods
- ASL Recognition with Deep Learning (July 2020 August 2020) (Python)
   Created a convolutional neural network to classify images of American Sign Language (ASL) letters

#### WORK EXPERIENCE

#### LabelMaster - Data Scientist (Practicum Student)

Chicago, Illinois • 08/2020 - Present (ML, data visualization, Data Engineering)

- Explored relationship between sales data and 9 freight market data, each with over 200 input attributes, in Google Cloud AutoML
- Visualized correlation between sales and external factors by scatterplot with linear fit, heatmap, and polynomial fit line
- Predicted dept sales using four machine learning algorithms in Google Cloud AutoML, and found random forest have the best performance with percentage error of 1.7% and R square of 90%
- Built user interface dashboard for presenting customized correlation visualization and model prediction
  using Microsoft Excel by using functionalities like using SUM function, setting borders, setting column
  width, inserting charts, using text wrap, sorting, setting headers and footers and/or print scaling.

#### Daten Solutions Inc. -Data Scientist Intern

Schaumburg, Illinois • 05/2020 - Present

- Designed basic studies, models, reports, manipulated datasets and performed analysis on the pharmaceutical datasets
- Performed data manipulation, data cleaning, data pull and developed models using SAS programming
- Developed statistical models like ARIMA using statsmodels package in Jupyter Notebook, the model achieved an overall accuracy of MAPE 5.96%, and participated in the interaction with the client and vendors, by communicating the results of the analysis

#### Cartesian Consulting Inc. - Data Analyst

Mumbai, India 04/2018 -07/2019

- Determined trend for improving customer retention and reducing churn rate using logistic regression, led to a two-fold improvement in the campaign response
- Executed geography-wise analysis by creating customer one view and customer profiling, and translated analysis into business terms and actionable guidance
- Identified the 'Most Valuable Customer' by leveraging the customer data and deploying Random Forest
  algorithm with True positive rate of 81%, this led to better customer targeting and improve yearly topline revenue by 13 %

### Greeksoft Technologies Pvt. Ltd. - Strategy and Analytics Intern

Mumbai, India 09/2017 - 12/2017

Built an RNN Neural Network model for Live positional trading using Keras package in python where
outputs supplemented Bull Spread Strategy in Options Trading, the developed model architecture was
backtested for the period from year 2012 to year 2017 where it achieved correct market prediction in
71 % of the days; this forecasting architecture is utilized for live trading

#### Tata Capital Financial Services Ltd. - Associate Analyst

Mumbai, India 07/2015 - 07/2016

- Drove acquisition channel of used car and two-wheeler dealerships, by building customer scorecard after analyzing different parameters affecting the repaying capacity
- Led a team of 3 to construct customer risk assessment by analyzing financial reports and client credit history, which led to a multi-fold increase in corporate lending for two-wheeler and used cars segment, with 0% NPA cases reported over the course of 10 months