

HARSH B. GUPTA

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EDUCATION

The University of Texas at Dallas

M.S., Business Analytics (Data Science)

May 2019

GPA 3.7

University of Pune, India

B.Eng., Electronics and Telecommunications

May 2013

GPA 3.5

SKILLS

Technical: Python, R, SQL, SAS, Spark, Hive, Hadoop, Sqoop, SPSS, Power BI, Tableau, Spotfire, QlikView, ETL, AWS, Azure, GCP, Google Analytics, Advanced Excel (Pivot Table, VLOOKUP, Macros), TensorFlow, NumPy, pandas, scikit-learn, matplotlib, ggplot, HTML, Data Mining, Data Wrangling, Clustering, Statistical Modeling, Quantitative Analysis

Relevant Coursework: Statistics • Machine Learning • Econometrics • Predictive Analytics • Prescriptive Analytics • Big Data Business Data Warehousing • Business Analytics with R • Natural Language Processing NLP • Programming for Data Science

EXPERIENCE

Data Scientist Intern – IHS Markit - Houston

Jun 2018 – Aug 2018

- **Machine Learning:** Trained models in Python to automate manual data parsing process, achieved >96% accuracy rate by using random forest, MLP, DNN, hyperparameter tuning with grid search and cross-validation, resulting in time reduction by 88%
- **Data Cleaning:** Transformed and cleansed unstructured data using Python to conform to the business requirements
- **BI Dashboards:** Developed dynamic and interactive dashboards in Power BI to provide tracking of key performance indicators
- **Recommendations:** Conceptualized and presented Q&A upvoting dashboard idea to the CEO to improve employee engagement by up to 8 times

Research Analyst – MarketsandMarkets - India

Aug 2013 – Jul 2017

- **Forecasting:** Estimated and forecasted the sales revenues and growth rates of MICRO and MACRO technology markets
- **Business Intelligence:** Authored 15+ business intelligence reports, generating over USD 5.8 million in revenue for clients
- **Data Collection:** Developed database to identify market economics, trends, new revenue sources, and growth opportunities using data from Hoovers, Factiva, Bloomberg, and Reuters databases and interviews with 100+ C-level executives
- **Strategize:** Performed competitor benchmarking analysis and strategized on new market entry and product enhancement

HACKATHONS AND COMPETITIONS ([more projects at www.gupta-harsh.com](http://www.gupta-harsh.com))

Product Sales Prediction – UTA Analytics Competition – Winner

- Analyzed 200k+ customer reviews of products using Natural Language Processing to understand the impact of customer sentiments on 37k+ Pier1 home décor products
- Designed a model to predict the success of product with an accuracy of 88%, using SVM, decision tree and random forest
- Visualized the product data in Tableau to analyze the impact of various attributes on sales and profits of the products

Los Angeles Restaurant Analysis and Prediction – INFORMS Analytics Challenge – Winner

- Built a Naïve Bayes classifier model to predict the health grade of the restaurant in the 88 cities of the Log Angeles county using only its name, address, and zip code with an accuracy of 63%
- Clustered the data using K-means clustering and visualized it on Tableau to understand the effect of seasonality, restaurant type, violation code, and demographics on the grade of the restaurant

Sign Language Interpreter using CNN – UNT 2019 Hackathon – Winner [[GitHub](#) / [YouTube](#)]

- Implemented a sign language interpreter to help deaf people with their daily communication needs using Deep Learning
- Created a dataset of over 105k greyscale images of 44 gestures in American Sign Language using OpenCV library in Python
- Trained a convolutional neural network using Keras on the images, added 6 different convolutional and pooling layers, to predict ASL hand gestures in live video feed with an accuracy of 97%

Intern Survey Prediction – Texas Instruments Challenge – Second Runner Up

- Used logistic regression to build prediction model for conversion of interns based on the intern reviews for Texas Instruments
- Examined qualitative survey data using text and word frequency analysis techniques to diagnose top sentiments of interns
- Recommended 6 organizational and 3 survey level action points to increase full-time offer acceptance rate by 35%

ORGANIZATIONS

- **Data Consultant** | Statistics without Borders
- **Leader** | JSOM Dean's Council

- **Core Member** | Data Science Club
- **Blood Donor Ambassador** | American Red Cross