Vaibhav Sharma

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Website | LinkedIn | Github

EDUCATION

University of Virginia, Charlottesville, VA Jul 2018 - May 2019

- Master of Science in Data Science, GPA: 3.85/4.0
- Courses: Statistical Computing, Machine Learning, Linear Models, Data Mining, Data Visualization

Birla Institute of Technology & Science, Pilani, India Aug 2010 - Jul 2015

- Bachelor in Electrical & Electronics Engineering + Masters of Science in Mathematics

SKILLS

Python (Pandas, Matplotlib, seaborn, Scikit-Learn, TensorFlow, NLTK, Gensim, scrapy, BeautifulSoup), R (ggplot2, tidyr, dplyr, plotly, tm, tidytext), JAVA, SQL, Git, Tableau, UNIX, AWS, PySpark, SAS, D3.JS

PROFESSIONAL EXPERIENCE

Software Engineer | GoIbibo, Gurgaon, India Jun 2015 – Mar 2018
Senior Software Engineer II | GoIbibo, Gurgaon, India Apr 2018 – Jun 2018

*Developed GoIbibo's Android mobile app in JAVA. Won several awards and was rewarded a **double promotion** in March 2018, after which I took on additional responsibilities for revamping the analytics engine of the entire app*

- Revamp of GoIbibo's analytics engine: Led the revamp of the analytics engine of GoIbibo's Android app
  - Developed **10 dashboards** to track progress by coordinating with the marketing and technology teams
  - The tracked events were directed to the various department, leading to consistent data reporting
- Flight grouping using sorting and hashing: Project to analyze lower conversion rates in the Flights vertical
  - Analyzed search result page (SRP) product impressions data to improve conversion
  - Optimized SRP results on price, baggage options and booking history to increase end-user flexibility
  - This resulted in a **0.5%** increase in click rates from SRP and a **0.3%** increase in conversion rates
- Wait-less flight booking solution: Conducted **A/B tests** to identify bottlenecks in the booking process
  - Implemented a wait-free solution on the mobile app resulting in a faster booking process
  - Led to an increase of 1% in conversion rates and improved user reviews

Co-Founder | Easy Way | Gurgaon, India Jan 2016 – Mar 2018

*Developed and released two android applications (Free Open Wi-Fi Connect and Wi-Fi Hotspot Tethering) on Google Play Store, getting **500,000+** total downloads and a rating of **4.3/ 5***

- URL: https://play.google.com/store/apps/details?id=com.easyway.freewifi
- The app efficiently searched and connected to free open Wi-Fi networks
- Incorporated user feedback, and monitored crash and click rate to release new improved versions of the app

PROJECTS & PUBLICATIONS

VR Chatbot for Army Training (Capstone):

- Developed chatbot to promote cultural sensitivity in the Army by classifying speech and providing feedback
- The system converted speech to text and the text was classified into binary labels to provide training feedback
- Different models were used for different questions and they used TF-IDF, word embeddings to represent the words in a matrix space
- **80%** of the users declared that the system accurately judged what they were saying and provided apt feedback and the system is currently being reviewed by ARL to determine if they can use it for their training purposes
- Paper on data collection methods- https://datascience.virginia.edu/projects/siri-translate-laojia. Paper accepted in *2019 Systems and Information Engineering Design Symposium (SIEDS)*

Sentiment Analysis of Amazon Reviews:

- Built ETL pipeline and model analyzing 0.5 million reviews predicting whether the customer liked the food
- The model used Logistic Regression on bi-gram (Word2Vec) achieving a 93% accuracy with **0.85 AUC**

Identification of Neural Granger Causality for Nonlinear Financial Time Series Data using Deep Learning:

- Developed two models using MLP and RNN for predicting a correlation in stock prices per hour not only within a firm but also between different firms
- Data consisted of 14 different firms with stock prices spanning across 5 years
- The models were successfully able to identify the correlations between **3 of the 5** firms finally considered

Regression Analysis of Graduate Admissions Data to predict admission likelihood:

- The objective of this analysis was to understand the significant factors in determining enrolment
- Leveraged statistical techniques exhaustively to build a predictive regression model that could compute the probability of an admit with a mean square error of 0.31