Joshua Sabherwal

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EDUCATION

The University of Michigan, Ann Arbor, MI

B.S. in Data Science Engineering *May 2022*

GPA: 3.90/4.00

Activities & Clubs: Collegiate Soccer Society (*Former President*), Michigan FinTech, STEM Society, Michigan Parliamentary Debate

Relevant Coursework Data Mining, Web Systems, Software Engineering, Database Management Systems, Data Structures, Algorithms, Computer Vision, Regression Analysis, Linear Algebra, Multivariable Calculus, Statistics and Probability, Business Strategy

Software & Tools HTML, CSS, C++, JavaScript, Java, Spark, Python, Pandas, Scikit-Learn, Selenium, NodeJS, TensorFlow, Keras, Tableau, PostgreSQL, AWS (Storage, Database and Analytics services)

EXPERIENCE

Blue Yonder, *Data Science Intern* *May 2021 – Aug 2021*

Scottsdale, Arizona

- Implemented and designed data-driven solutions for global sales division to accurately forecast a CE's closing rate up to 2 quarters ahead and increase opportunity visibility by preprocessing large volumes of data, engineering features, conducting multivariate tests, and building a pipeline in Spark for an internal 'opportunity scoring' supervised ML model
- Increased CE pipeline by 46% by using Google, Twitter and LinkedIn API's to scrape competitor intelligence, prospect activities, and identify whitespace on new and current accounts with cross-sell potential using multi-class classification techniques

Formlabs, *Software Engineering Intern* *June 2020 – Aug 2020*

Somerville, Massachusetts

- Worked for a leading 3D printing company incubated in MIT Media Lab to automate build and deployment using Jenkins and Kubernetes for export of daily entries of customer data on Magento and Dialpad via Python scripts. Further used AWS S3 and Athena for the storage and migration of data to Tableau dashboards
- Assisted in frontend and backend website development, debugging and testing. Further implemented end-to-end data pipeline to process and analyze shipment issues using PostgreSQL and optimized Python scripts, reducing issue rate by 24%

Michigan Data Science Team, *Project Manager* *Jan 2020 – May 2020*

Ann Arbor, Michigan

- Achieved an accuracy of 79.2% by engineering a KNN classification model to categorize food items into healthy and non-healthy buckets, helping students make an informed choice about their meals
- Built a linear regression model yielding 84.7% accuracy to predict the nutritional values of newly introduced items to enable dining halls to list nutritional information for items more accurately and easily

Accenture, *Data Analyst Intern* *May 2019 - July 2019*

New Delhi, India

- Analyzed and processed historical data of customer complaints to create region-wide action plans to reduce RTO complaints by 30% for one of biggest motorcycle manufacturers in India
- Created interactive dashboards utilizing Tableau and Excel to provide key understandings of sales and service complaint data

PROJECTS

Surveyor

- Developed a full stack web application using NodeJS, React, Redux and MongoDB that allows users to send custom surveys, track their responses using Webhooks, and analyze the feedback/response through visual dashboards
- Integrated the application with the Stripe API to enable payments from the users

Safety Applications for Vehicle Trajectories

- Worked in the Next Generation Transportation Systems Lab under Dr. Neda Masoud researching unsupervised machine learning methods to detect rash driving using data from connected vehicle trajectories
- Pre-processed data from vehicles and applied TensorFlow Recurring Neural Networks with Keras for object classification from camera sensors of autonomous vehicles

Piazza Post Classifier

- Developed a program in C++ to automatically classify the topics of Piazza (a Q&A web service) posts
- Trained the "Multivariate Bernoulli Naïve Bayes NLP Classifier" model using log-prior probability scores and achieved an accuracy of 87.1% when predicting the topics of over 4000 posts

Movie Recommender System

- Implemented a recommender system with content-based and collaborative filtering on the MovieLens dataset to accurately suggest movies to a user using linear algebra and scikit-learn python library