MANSI GOEL

mansigoel0029@gmail.com |+1 (667)-379-9690| Cupertino, CA | GitHub | LinkedIn

EDUCATION

JOHNS HOPKINS UNIVERSITY | MSE Data Science | 3.81/4 December 2023

- Coursework: Data Science, Machine Learning (ML): Deep Learning, Databases, Statistical Methods & Data Analysis, Computing, Artificial Intelligence, Intro Algorithms, Research and Design in Applied Math, Optimization

SHIV NADAR UNIVERSITY |B.Sc. Mathematics, Minor in Computer Science | 8.64/10 May 2022

- Coursework: ML through R, Deep Learning, Computing, Data Structures, Database Systems, Calculus, Linear Algebra, Probability, Discrete Mathematics, Statistics, Operating Systems, Java
- Honours/Awards: Dean's List awardee, Merit based tuition fee waiver in all semesters

SKILLS

Python (NumPy, Pandas, Scikit-learn, Matplotlib, Seaborn), SQL, Tableau, R, Celonis, GitHub, Jupyter Notebook, Natural Language Processing, Machine Learning Models (Regression, Classification, Clustering), Artificial Intelligence, Data Visualisation, Data Science, Data Analysis

EXPERIENCE

Data Science Intern, PITNEY BOWES June 2023 – August 2023

- Developed marketing attribution model with the marketing stakeholders, leveraging SQL to merge datasets of marketing and sales touchpoints, resulting in almost 90% accurate marketing spend allocation
- Executed a Markov Chain model to assess touch point effects on lead conversion, creating a structured approach for allocating opportunity amounts among marketing and sales teams using model-driven weights
- Championed introduction of 'odds' metric and a time centric framework for weight computation based on touch point removal 30, 60, and 90 days before conversion

Teaching Assistant, JOHNS HOPKINS UNIVERSITY January 2023 - May 2023

- Undertook weekly python discussion sessions for class of 20 undergraduate students
- Leveraged practice problems and coding exercises to enhance student performance in understanding ML algorithms and Python programming by 25%, while also assisting in grading, sharing detailed performance feedback to students

NLP Research Assistant, CENTRE FOR ARTIFICIAL INTELLIGENCE AND ROBOTICS (DRDO) August 2021 - April 2022

- Implemented topic modeling using LDA on COVID-19 scholarly articles dataset based on 10 keywords
- Implemented and trained a BERT classifier model utilizing 2000 articles and a count – based topic assignment
- Analysed classification criteria changes on retraining epochs, averaging to 17, like the base model

Data Science Intern, PITNEY BOWES June 2020 - August 2020

- Created SQL queries to pull shipment data from Snowflake to conduct data analysis in Python and predicted claims due for guaranteed delivery service clients
- Built weekly Excel dashboards to monitor claims PB must pay to these clients for delayed shipments

PROJECTS

Sepsis Management: Analysis of Vital Signs & Antibiotic Response , Johns Hopkins University

- Developed classification model for sepsis detection in 450 PICU patients, using clinical indicators derived from vital signs and blood culture results under tutelage of Dr. James Fackler and Dr. Tamas Budavari
- Employed pre-processing and feature engineering strategies to combine 2 datasets, enhancing model performance
- Implemented ML algorithms (SVM, Random Forest, KNN) achieving accuracy of 89% with SVM

Optimizing and Evaluating Airline Routes, Johns Hopkins University

- Applied K-Means, graph anomaly detection, and a score system to convert Southwest Airlines' present point to point model into a hub-and-spoke model, generating 7 hubs
- Deployed Markov chain process to simulate 4 sample hub-and-spoke model and compare to existing model
- Boosted total passenger intake by 21%, decreased departure delays by 14%, and increased net profit by 22%

Early-Stage Diabetes Risk Prediction, Shiv Nadar University

- Deployed ML models (Random Forest, Support Vector Machines) and Neural Networks (ANN, PNN) as part of an end-semester course project while achieving accuracy of 0.981 through Random Forest

LEADERSHIP & AFFILIATIONS

Student Representative, SHIV NADAR UNIVERSITY January 2019 - May 2021

- Secretary, Artificial Intelligence Club (20-21), Technical Advisor, Mathematics Society (20-21)
- Secretary, Mathematics Society, School of Natural Sciences (19-20)