SVKM'S
NMIMS
Deemed to be UNIVERSITY

SUNANDAN DIVATIA
SCHOOL OF SCIENCE

Department of Statistics

B. Sc. Applied Statistics and Analytics

Semester VI Projects

AY 2019 – 2020

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SCHOOL OF SCIENCE**

Data Science Project:

CARLA Simulator: Creating a Self-Driving car model

Techniques Used:

Reinforcement Learning, CNN, Semantic Segmentation

Risk Analytics Project:

Creating autonomous trading bot and comparing it with different traditional asset allocation strategies and predicting future stock prices using machine learning.

Techniques Used:

Reinforcement Learning using risk Metrics, Markovitz Model.

Madhura Khobragade

Foram Selarka

Param Mehta

Harsh Talajia

Unnati Mehta

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Data Science Project:

Create a Reading community to recommend books based on the reader's reading history and provide a list of users having the same content of reading history.

Techniques Used:

Collaborative filtering (KNN & UBCF), Cosine Similarity, Clustering (K-means) and NLP

Marketing Analytics Project:

To help an e-commerce company devise marketing strategies based on consumer behaviour set business development goals.

Techniques Used:

Marketing Basket Analysis, Funnel & Cohort Analysis, Decision Tree, Consumer Analysis

Ruchita Chokhani

Sharan Shyamsundar

Tanay Beriwal

Yash Mehta

Data Science Project:

NMIMS Website Assistant

~The new-age enquiry bot~

Creating a website assistant with a course recommender for NMIMS University

Techniques Used:

Naive Bayes Classifier, Support Vector Machine and Feed Forward Neural Network

Risk Analytics Project:

Portfolio Stress Testing For Commodity Futures

Techniques Used:

GARCH-EVT Model, Copula, Semi parametric distribution fitting, Stress Testing, VaR

Pooja Aryamane

Veenay Sayyaparaju

Vedant Singhania

Niharika Sharma

Data Science Project:

Creating a hands-on interface for elementary and middle school students to use for assistance with math equations and questions. Equipped with functionalities of handwriting and speech recognition.

Techniques Used:

Convolutional Neural Networks, SVM, KNN

Marketing Analytics Project:

To help the company gain insights on consumer buying patterns, to generate consumer profiles for targeted marketing and to identify items frequently bought together.

Techniques Used:

RFM, Market Basket Analysis, Consumer Profiling

Ananya P

Dhruv Gupta

Rohan Kukreja

Raghav Agarwal

Data Science Project:

IPL 2020 Prediction using Machine Learning

Techniques Used:

Multiple Regression, Recursive Feature Elimination, Random Forest, XG Boost

Marketing Analytics Project:

To understand the customer and segment them to gain insights on each segment reaction to price change, promotions and product .Thus helping in product management.

Techniques Used:

Hierarchal Clustering, PCA, K-Means, Logistic Regression, Price elasticity, Multi-nominal regression

Rutvi Gothi

Jheel Gopani

Data Science Project:

To create a lie-detection model using various machine learning techniques and classification algorithms which will help to extract various features from the data and conclude whether the participant is saying the truth or lie.

Techniques Used:

Random Forest, SVM, KNN

Neel Shah

Utsav Kothari

Risk Analytics Project:

Creating an optimum fund for getting maximum return and minimum risk and predict future stock prices for the portfolio. To check it's efficiency using VaR models.

Techniques Used:

Reinforcement Learning using risk Metrics, Markovitz Model.

Ananya Kamdar

Pujit Golchha

Phalguni Kothari

Shristi Jain

Data Science Project:

Music Recommendation Systems

Techniques Used:

Collaborative filtering (KNN), Content filtering (Cosine Similarity), Clustering (K-means) and NLP through Neural Network (Word2Vec)

Risk Analytics Project:

Evaluation of credit risk at the individual and corporate level for safer lending and investments by financial institutions

Techniques Used:

Logistic Regression, Naive Bayesian Classifier, Random Forest Classifier and Altman Z-scores

Shrey Jain

Misha Jain

Naman Mehta

Atmanand Singh

Data Science Project:

To build a model that can detect DeepFakes.

Techniques Used:

Convolutional Neural Networks

Risk Analytics Project:

Risk Management for Changing Interest Rates: Protecting the Bank's Net Worth
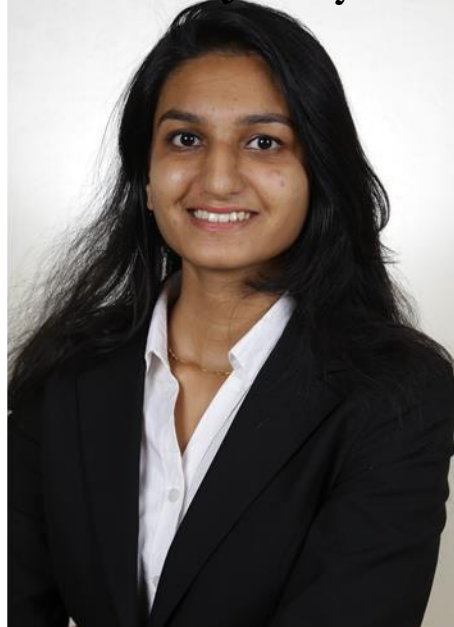
Techniques Used:

Duration GAP Analysis, Asset Liability Management, Immunization of Balance Sheet

Shreya Khara

Nidhi Jasoliya

Prachee Talwar

Karan Hiranandani

Data Science Project:

To generate awareness about how search engines accumulate data from their users by taking conversations into consideration.

Techniques Used:

Logistic regression, MLP, SVM, XGBOOST, MNB

Marketing Analytics Project:

To increase the crowd at Vaashi branch of IIDE. To build a model that helps IIDE with allocating internships to the students with the given hiring partners.

Techniques Used:

EDA, Decision tree/collaborative recommendation system