Saurabh

MTECH (Industrial & Management Engineering)
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ACADEMIC DETAILS

YEAR	DEGREE	INSTITUTE	PERFORMANCE
2018-Present	M.Tech. (Industrial & Management Engineering)	Indian Institute of Technology, Kanpur	7.25*
2016	B.Tech. (Production Engineering)	College of technology(GBPUAT), Pantnagar	68.03%
2012	Class XII, CBSE Board	St. Mary's Sr. Sec. School, Jwalapur	51.20%
2010	Class X, CBSE Board	St. Mary's Sr. Sec. School, Jwalapur	8.4

**upto 2nd semester*

SUMMER INTERNSHIP

Data Analyst Intern at Zylotech Solution Pvt. Ltd. (1 out of 3)

Problem Statement: The objective of the project titled "**Web Scraping using Python and model testing for CDP (Custormer data platform)**"
Tools Used: Selenium, Scrapy, Numpy, Matplotllib, Pandas,VBA-excel

- **Project Description**: Designed an end to end automation tool to get required customer data from multiple sources (social platforms) for **CISCO** data using python libraries such as selenium, urllib, beautiful soup, scrapy and excel VBA, and performed data cleaning and pre-processing.
- Organised customer data from multiple sources in achieving a 360 degree customer view and then perform predictive analysis using CDP (customer data platform) software provided by Zylotech.
- Worked with R&D team and made a tool which was presented to the CEO and Client during the internship.

ACADEMIC PROJECTS

Data Mining And Knowledge Discovery

Music Recommendation System: To predict the chances of a user listening to a song repetitively after the first observable listening using R

- Built Music Recommendation System using a dataset that holds Asia-Pop music library with over **30 million tracks**
- Stratified Sampling is done on 70 lakhs tuples, Performed pre-processing on the dataset including **PCA,** using **K-fold cross-validation** for training and validation dataset, Generated classification report & confusion matrix for **precision, recall and F-1 score**
- Models applied **– Xgboost and Random Forest**, Got the best accuracy of 69.62% with **XGBoost classifier.**

Packages used – ggplot2, dplyr, data.table, tibble, Caret, Xgboost, Gbm,Ranger.

Statistical Modelling For Buisness Analytics

Predicting the prices of used corolla cars

- Used **Descriptive Statistics**: measure of fit , correlation matrix , Performed heteroskedasticity & Multi-Collinearity.
- Checked for omitted variable bias , Performed **Regression** analysis and finalized a **multivariate regression model** on the basis of R^2 & **adjusted R^2** value.
- **Adjusted R squared** value for the selected model was 0.856

Time Series Analysis on Bike Sharing Data

- The aim of the project is to predict the number of bikes that will be rented in the USA for consecutive day. Data set consist of 732 rows and 10 variables.
- Inspected the data for trends, cyclicity, seasonality and carried out Data Cleaning : Removed outliers,Seasonality and Actualized Missing Values.
- Applied **ARIMA MODELS** and **ARMAX** or dynamic regression: transformed data into Stationary Time Series and identified the Auto-Regressor and Moving Average parts.
- Examined the Statistical Significance (p-value) and established a model with least **Akaike Information Criterion (AIC)** and **Bayesian information criteria(BIC)** an estimator of the relative quality of statistical models for a given set of data.

COURSEWORK AND SKILLS

Relevant Courses	Probability and Statistics | Operations Research | Introduction to Computing | Data Mining and Knowledge Discovery | Statistical Modeling for Business Analytics | Manufacturing Planning and control | Operations Management |
Technical Skills	R | Python(NumPy, SciPy, Matplotlib, Pandas, Scikit-learn ,Selenium, Scrapy) | VBA excel| Java | MySQL | MS Excel

POSITIONS OF RESPONSIBILITY

- Organized TECHNOCAD**,** departmental event during Cognizance 2018 annual technical test of IIT Roorkee.
- Volunteer a Cognizance 2018.
- Coordinator at GENESIS- Branch chapter of production engineering.

ACADEMIC AWARDS AND ACHIEVEMENTS

- Secured 1st position in **COGNIANCE** 2018 annual technical fest of **IIT Roorkee.**
- Secured 1st position in Akhil Bhartiya Sanskrit Gyan Pariksha, Shanti Kunj Haridwar.
- NSS 'B' and 'C' certificate holder.