ABHAYRAJ PRATAP SINGH

MTech (Industrial & Management Engineering)

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ACADEMIC DETAILS

YEAR	QUALIFICATION	EDUCATIONAL INSTITUTION	CPI/PERCENTAGE
2020-22	M.Tech (Industrial & Management Engineering)	Indian Institute Of Technology, Kanpur	8.03*
2014-18	B.Tech (Mechanical Engineering)	Gurukul Kangri Vishwavidyalaya	67.57%
2014	Class XII (UP Board)	SSPD SVM IC Kasganj	90%
2012	Class X (UP Board)	SSPD SVM IC Kasganj	91.83%

*upto 2nd sem

ACADEMIC PROJECTS

Statistical Modeling for Business Analytics	**Analysis of Factors affecting car price** • Carried out **multivariate statistical regression** analysis to study which variables are significant in predicting the price of a car. • Performed **EDA**, calculated **measure of fit**, **correlation matrix**, performed **Breusch-Pegan** test for **heteroskedasticity**, checked for **multicollinearity** using **VIF** (Variance Inflation factor) and looked for **omitted variable bias**. • Feature elimination is done using **RFE** (Recursive Feature Elimination) based on **p-value** and finalized model with **R^2 0.918**, **Adjusted R^2 0.915** .
Data Mining and Knowledge Discovery	**Fake Job Posting Prediction** • Performing **EDA**, feature engineering, **Text Preprocessing(**using **Tokenization, Lemmatization, TF-IDF** vectorizer) on the dataset with 18000 job descriptions out of which 800 are fake. • Applied **Logistic Regression, KNN, SVC, Random Forest** as base models and used **GridSearchCV** to **hypertune** the parameters and achieved and achieved **AUC-ROC score of 0.5731** and **95% accuracy** with Logistic Regression.
Marketing Research	**Analysis of Consumer Behavior towards Xiaomi Smartphones** • Designed **cross sectional dynamic** survey form using **Likert Scaling** techniques, data collected using online surveys,focus groups and personal Interview With peoples from different states. • Conducted exploratory descriptive research and analysis data using **statistical test (t -test)** in SPSS with **90% confidence level** to test the hypothesis. • Using SPSS, essential factors which affect the sale are **price, customer service, discount, durability, features** etc.

SELF PROJECT

Time Series Analysis	**Forecasting SBI Stock Price with Time Series Analysis** • Forecasted SBI Stock price with previous 4.5 years data, checked Stationarity, Seasonality, Trend using **Dicky-Fuller test**, **ACF and PACF** plot. • Applied Time Series models – **AR, MA, ARMA, ARIMA, SARIMA, Exponential Smoothing.** • Predicted stock price for next 45 days (2 months), based on best tuned model **ARIMA (3,1,2)** with **RMSE 41.36** .

COURSEWORK AND SKILLS

Relevant Courses	**Statistical Modeling for Business Analytics ,Applied Machine Learning, Data Mining and Knowledge Discovery**, Marketing Research, **Probability & Statistics** ,Operations Research for Management
Online Courses	**Time Series Analysis in Python 2021** at Udemy, Statistics for Data Science and Business Analysis at Udemy
Technical Skills	Python(NumPy ,Pandas, Matplotlib, Scikit-learn)| SPSS	MS Excel	

SUMMER INTERNSHIP   (Jun'21-July'21)

Data Science Intern at Harvesting India Pvt Ltd.

Objective : Product Recommendation System Using Customer Purchase History
• Purchase history of 72 days is available that contains 1352 unique orders, 659 unique customers and 159 unique products.
• Python and Machine learning module **Turi-create** is used for constructing a model.
• Data manipulation is done using **Pandas** and **Numpy.**
• Two types of model is used for this task: **Popularity Model** and **Collaborative Filtering Model** .
• Collaborative Filtering Model is used with **Cosine Similarity** and with **Pearson Similarity.**
• **RMSE, Recall** and **Precision** used for model evaluation and model selection.

ACHIEVEMENTS

• Secured **99.63 percentile** in GATE (Mechanical Engineering) 2020.
• Secured **95.12 Percentile** in JEE MAINS 2014.
• Managed and provided support to 50+ students and administered exams as **Teaching Assistant** at DIME in IITK.
• **Captain** of department cricket team **"ROYAL HITTERS"** in FET GKV Haridwar