Ravi Tiwari.

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ACADEMIC DETAILS

YEAR	QUALIFICATION	EDUCATIONAL INSTITUTION	PERCENTAGE
2021 - 2023	Industrial & Management Engineering	Indian Institute of Technology Kanpur	7.7 CPI
2015-2019	BTech	Textile Chemistry	RTU, Kota	7.045 CGPA
2015	12th	Rajasthan Board	MBVB Sr. Sec. School Kota	71.00%
2012	10th	Rajasthan Board	Govt. Sr. Sec. School Akola	56.83 %

WORK EXPERIENCE

Project Manager | Digital Darpan *(Fab'20 -April'21)*

- Managed social media **political campaigns** to achieve **15+ million organic reaches** by leading and distributing work among team.
- As a **project manager**, managed **social media accounts** and analyzed competitor's **social media marketing strategies**.
- **Managed SEO projects, did keyword research**, improved SERP rankings by **website speed optimization** and on Page SEO.

Textile Graduate Trainee | BMD Pvt. Ltd *(Jun'19 - Dec'19)*

- Worked as TGT (**Textile Graduate Trainee**) in **Statistical Quality Control department**.

INTERNSHIPS

Neural Interactive Collaborative Filtering (Reinforcement Learning) | Mphasis, Next Labs *(June'22 -July'22)*

Objective	- To build an interactive recommendation system using reinforcement learning that could resolve cold start recommendations problem
Approach	- Preprocessed **Amazon's real-time product rating data** using file handling and ordinal encoding of product and reviewer's id - Defined the **agent** behaviour and created a **custom environment** with a **reward function** (Reward(r)=1 for item rating r>=4 else 0). - Used **Q-learning** algorithm to learn the **policy function** by training the agent with a **Sequential neural network**.
Result	- Learnt **Q-value** of each product to resolve **cold start problem** and used customized **precision** to measure to evaluate the model. - Prepared an **inference code** that takes the **history of the user** and gives the **top 5 recommendations**.

Development of ML Model to predict weave time & extracting business insights from raw data | Jaipur Rugs *(Dec'21 -Jan'22)*

Objective	- Development of a machine learning model to predict the weave and lead time of carpet to get business insights from raw data.
Approach	- **Extracted data** from the database, and performed data cleaning, preprocessing, and exploratory data analysis on the raw data. - Used **StatsModels** library for descriptive analysis with the **linear regression** model, built machine learning model with **Scikit-learn**. - Used different machine learning models such as **Linear Regression**, **Decision Tree Regressor**, and **Random Forest Regressor**. - Implemented **Gradient Bosting** and **Bagging techniques**, used **RandomSearchCV** and **GridCV** for hyperparameter tuning.
Result	- Obtained $R^2 = 0.468$ using Linear regression model and $R^2 = 69.5$ using **Random Forest Regressor.**

PROJECTS

Predictive ETA Modelling | Supervisor: Prof. Faiz Hamid, IME, IITK *(April'22 -Aug'22)*

Objective	- Development of predictive models to forecast the **Estimated Time of Arrival (ETA)** of freight trains at their destinations - Problem description and data posted by **Railway Applications Section (RAS)** Problem Solving Competition 2021, under Institute for **Operations Research and the Management Sciences (INFORMS), USA**
Approach	- **Pre-processed** and **visualized** the route dataset of different lanes using **EDA** techniques in **Seaborn**, **matplotlib** and **Pandas**. - Formed attributes "Distance" using **GPS data** and "Cumulative Travel Time" & "Cumulative Dwell Time" using **sighting time**. - Applied **Linear regression**, **Decision Tree Regressor**, **SVM**, **Random Forest Regressor** to predict ETA at the in-transit and destination stations and applied **Bayesian Learning** for **hyperparameter tuning** on the dataset.
Result	- Obtained $R^2 = 0.9947$ & **RMSE = 2.37** using **random forest regressor** for prediction of travel time.

Real / Fake Job Post Prediction | Data Mining and Knowledge Discovery | Prof: Faiz Hamid *(June'22-July'22)*

Objective	- To build a classification prediction model to predict whether job posted is fake or not.
Approach	- Used **Stamping, tokenization, and lemmatization** to transform text data to make it adaptable to the **NLP model**. - Used **TF-IDF** for feature extraction from the data, and trained model on **500**, **1000** and all features. - Applied various techniques to handle the **class imbalance problem** like **SMOTE** and **Random selection** for under sampling.
Result	- Obtained **0.71 Precision** and **0.74 recall** for **fraudulent class** at **98% accuracy** using **VotingClassifier model**

Analysis on customer satisfaction towards Online Shopping | Marketing Research | Prof. Shankar Prawesh *(Jan'22-April'22)*

Objective	- To conduct Identification Research to analyze & identify salient features of **Customer satisfaction towards online Shopping.**
Approach	- Collected **200+ responses** to multiple questions about satisfaction using **online surveys**, **focus groups & personal interviews**. - **Exploratory Data Analysis, Descriptive Research** with SPSS and Python on the data (Convenience Random Sampling) - Statistical Analysis **using (parametric & non-parametric) tests (One /Two tail test, Chi-squared test)** to verify **hypotheses**.
Result	- E-commerce must have a **quality assurance** team for non-branded items to gain customers exponentially, around **26% of people** with an income of less than **3 LPA** and **13%** of those with an income of more than **3 LPA** prefer non-branded item.

SKILLS

Relevant Coursework: Data mining & knowledge discovery | Statistical modelling for Business Analytics | Applied Machine learning | Marketing Research | Computer Aid Decision Support System | Causal Inference for Business Analytics | Probability and Statistic |

Programming, ML Libraries: Python | R | Introduction to SQL | Pandas | Scikit-Learn | NumPy | Stats models | NLTK | Java (basic) | HTML | PHP(basic) | CSS | Excel | MS Word | PowerBI | MariaDB | Tableau | Power Point |

CERTIFICATIONS

SQL for DS	Use SQL commands to filter, sort, UNION operator, Manipulate strings, dates, numeric using functions and summarize data.
Data Science	Learnt Statistics (hypothesis Testing, Descriptive and Probability), Linear Regression, Logistic Regression, and Clustering

RESPONSIBLITIES

Coordinator	Senior Coordinator in **ACR** team, Successfully conducted 27 webinars where speakers were prominent industrial experts/Alumni
TA	**Teaching Assistant** of Data Mining and Knowledge Discovery course at Industrial and Management Engineering at IIT Kanpur
Team Member	Orientation team member in **Counselling Service** at IIT Kanpur.