SAURABH SACHAN

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M.TECH (Industrial & Management Engineering) **LinkedIn:** **GitHub:**

ACADEMIC DETAILS

YEAR	DEGREE	INSTITUTE	PERFORMANCE
2020-22	**M.Tech (Industrial & Management Engineering)**	**Indian Institute of Technology, Kanpur**	**8.73* CPI**
2016-20	B. Tech (Textile Chemistry)	Uttar Pradesh Textile Technology Institute, Kanpur	8.71 CGPA
2015	Class XII | U.P. State Board	R. S. Education Center Inter College	88.20%
2013	Class XII | U.P. State Board	Pt. Deen Dayal Upadhyay S. D. Vidyalaya	89%

*Up to 2nd Sem

TRAINING EXPERIENCE

Product Management Trainee at **Doremon Den** (EdTech Startup for training Product Management Aspirants)*ongoing *(Aug'21-Sep'21)*

- 6- week-long boot camp focused on building specific targeted skills necessary for the role of a Product Manager through peer-to-peer learning
- In-depth study of topics like **Root Cause Analysis**, Product Critique**,** Product Design, **User Journey** through various case studies & real-life examples
- Learned the ability to communicate effectively through frequent team meeting discussions, brain-storming sessions, presentations & collaboration

INTERNSHIP

Data Science Intern at **Harvesting India Pvt Ltd** (AgriFin Company) *(April'21-July'21)*

- Using objection detection framework, automated fruit detection & sorting and identification of the damaged fruits items
- Selected a Yolov5 model for training on the dataset consisting of 2000+ fruit pictures, which was split in (70/30) test to train ratio
- Model obtained 82% accuracy on the test dataset & Initiated model deployment on the Harvesting India website

ACADEMIC PROJECTS

Statistical Modelling for Business Analytics

Telecom Customer Churn Prediction * *ongoing* *(Aug'21-Sep'21)*

- Dataset contained 7043 rows (customers) and 21 features such as "customer account", "customer demographic info", "paperless etc.
- Performed EDA, applied **SMOTE** to balance the data **and RFE (Recursive Feature Elimination)** to select the 15 significant features
- **Logit** and **Probit** models were used for classifying the churn class; features were dropped based on **p-value** and **VIF**
- Logit showed better results as the **accuracy** was about **79%**, **precision** of **73.8%** and a **recall** of **62.4%**, **AUC** of **ROC curve** was **0.83**

Marketing Research

Survey on Xiaomi mobile to analysis the consumer behavior *(Feb'21-Apr'21)*

- Conducted Survey on Xiaomi mobile to analysis the **consumer behavior** which would help in **covering the large segment** of Indian Market
- Data collected using online survey, focus groups and conducting 12+ personal Interview with people from different states
- Designed **cross-sectional case study** dynamic survey form using **Scaling techniques**, pretesting to control internal & external validity
- Conducted exploratory descriptive research & analysis data using t -test in SPSS with 90% confidence level to test the hypothesis

Operation Management

Examining the Impact of Covid-19 on Automation Industry Supply Chain (Term Paper) *(Feb'21-Apr'21)*

- Presented a concise review of impacts, future of the automotive industries & mitigation strategies w.r.t current pandemic situation
- Studied and prepared a literature review of the research papers, news reports and the experts view on the subject in question
- Report suggested measures like designing and establishing an operating model for responses related to supply chain intervention
- Proposed a stepwise process of developing resilient supply chains as the remedy for the firms to tackle the COVID-19 crisis

Applied Machine Learning

NYC Taxi ride pick-up prediction *(Feb'21-Apr'21)*

- Used **K-means clustering** to break NYC regions on the Taxi Trip data, to predict the no. of pick-ups for each region in a 10 min interval
- Created time interval using the UNIX timestamp, and for data processing, **Dask-DataFrame** was used instead of Pandas
- Applied **Linear Regression, R-F Regression, Xg-Boost** and **Baseline Models** on "ratio" and "previous" values
- Baseline Model (Exponential Moving Average) worked best on the basis of MAPE score with **14%** on train and **13.6%** on test data set

SELF PROJECTS

Power BI Dashboard

Sales Insights for a Computer Hardware Company (*Jan'21-Mar'21*)

- Dataset included 150k+ datapoints of sales data, including the customers, dates, markets, products & transactions
- Performed Data cleaning and ETL (Extract, transform, load), currency normalization and sorted out the invalid values
- Created Key performance indicator in Power BI dashboard to get insights, which would help in making data driven decisions

NLP & Deep Learning

Amazon Sales Recommendation (*Jan'21-Mar'21*)

- Build a **recommender system**, which recommends similar apparels items using text and image data, data obtained through **web scraping**
- Performed **deduping,** text pre-processing & data cleaning on 180k rows & 19 columns and get cleaned dataset of 16k rows & 7 columns
- Applied **Bag-of-words** (BoW), **Term Frequency-Inverse Document Frequency** (TF-IDF) & **word2vec** (W2V), W2V showed better results
- Used **CNN model** (VGG16) on visual features based on similarity offering good recommendations, 'A|B' testing can be used for finalization

ACHIEVEMENTS/AWARDS & CERTIFICATIONS

- Secured **All India Rank (AIR) 4 in GATE** 2020 (TF) with 99.74 percentile
- Awarded with **Amul Vidya Shree** Award for outstanding performance at HSC board exams
- **Machine Learning & Deep Learning in Python** (4 weeks of hands-on learning with assignments/projects)
- **SQL for Data Analytics** (2 weeks of learning through various projects & use case analysis),
- **Time Series Analysis and Forecasting Using Python** (13+ hours learning)

POSITIONS OF RESPONSIBILITY

Core Team Member of Alumni Relation Team, IME IIT Kanpur (*Aug'20- Present*)

- **Successfully** organized up to 20 webinars with the alumni who worked at top position.
- **Initiated** the process to organize the virtual meet of alumni in batches to build a good relationship with industries.
- **Coordinated** the end-to-end process of data collection and updating relevant details of 300+ alumni of MTech IME, IIT Kanpur

Teaching Assistant for the Course IME 603A (Introduction to Computing) (*Aug'21- Present*)

- **Handled** course logistics and contributed to discussions for improving the course content and delivery