

ACADEMIC DETAILS

Year	Qualification	Institute	Performance
2019-21	M.Tech. (Industrial & Management Engineering)	Indian Institute of Technology Kanpur	7.63*
2013-17	B.Tech. (Mechanical Engineering)	Indian Institute of Technology Patna	7.83
2012	Class XII (ISC)	Scholars' Home, Lucknow	84.6%
2010	Class X (CBSE)	Jawahar Navodaya Vidyalaya, Mau	9.8/10

* till 2nd Semester

INTERNSHIP

DATA SCIENCE INTERN, MPHASIS

(May'20 – Jul'20)

Process Mining and Process Simulation

- Worked with business process event logs dataset; **Created two AI/ML modules** namely Resource Allocation & Completion Time.
- Integrated with the pre-built process simulator engine to help businesses/users to do **What-If scenario** analysis.

AWS Marketplace Algorithm: Personally Identifiable Information (PII) Data Scrubber

- Built an algorithm to identify PII (Name, SSN, Email etc.) and populated it with similar fictitious PII using packages available in Python.

ACADEMIC PROJECTS

TMDB BOX OFFICE MOVIE REVENUE PREDICTION (Data Mining and Knowledge Discovery)

(Aug'19-Nov'19)

- Predicted movie revenue from 22 independent variables using regression techniques.
- Performed Data cleaning, exploration, pre-processing. Tested some basics intuition/hypothesis statistically and by visualizations.
- Applied Linear regression(LR), Random Forrest regression (RFR) models. Evaluated models on MSE value 0.859 for RFR and 0.963 for LR.

ANALYSIS OF FACTORS AFFECTING CAR PRICE (Statistical Modelling for Business Analytics)

(Jan'20-Feb'20)

- Carried out **multivariate statistical regression** analysis to study which variables are significant in predicting the price of a car.
- Calculated measure of fit, correlation matrix, performed EDA, performed **Breusch-Pagan test** for heteroskedasticity, used VIF (Variance Inflation factor) to check multi-collinearity and looked for **omitted variable bias**.
- Did Feature elimination; RFE (Recursive Feature Elimination) based on p-value and finalized model with R² 0.918, Adjusted R² 0.915.

AIRLINE PASSENGER FORECASTING using TIME SERIES ANALYSIS (Statistical Modelling for Business Analytics)

(Mar'20-April'20)

- Checked for **Stationary, Seasonality, Trend** using Dickey-Fuller test, EDA, ACF, PACF on 20 years of month wise data.
- Built statistical models Exponential Smoothing, **AR Model, ARIMA** and finalized model with RMSE=61.92.

CUSTOMER SEGMENTATION to DEFINE MARKETING STRATEGY (Applied Machine Learning)

(Jan'20-Feb'20)

- Handled missing, duplicate data by data visualization and exploration, plotted KDE and correlation metrics heatmap
- Applied **K-mean clustering** model. Used Elbow method to find optimal number of clusters. Used **PCA** (Principal Component Analysis), **Autoencoder** for dimensionality reduction and feature reduction.

SCIENCE & TECHNOLOGY CLUB, IITK (Summer Camp 2020)

(May'20-Jul'20)

TWEET SENTIMENT EXTRACTION (TSE) (Brain and Cognitive Society, IITK)

- Led a 3-member team; participated in TSE live Kaggle competition; Achieved a Jaccard-score of 0.715; Highest being 0.736 on Leaderboard
- Modelled as Q&A problem, used **RoBERTa** transformers, DistilBERT; pre-trained on Stanford Question Answering Dataset (SQuAD).
- Fine-tuned RoBERTa** model using its **hyper-parameters**. Used SoftMax as the activation function. Achieved an optimum result by ADAM optimizer with learning rate = 3e-5.

IMAGE PROCESSING in FINANCE (Finance and Analytics Club, IITK)

- Implemented a novel approach of algorithmic trading model using deep CNN, **Time series to Image Conversion Approach**.
- Created 12x15 sized 2-D images using 12 different trading indicators and its corresponding data for a 15-days. Labelled each image as Buy, Sell or Hold. Trained deep convolutional neural network for the algorithmic trading system using Python.

COURSEWORK AND SKILLS

Academic	Data mining Probability & Statistics Statistical Modelling for Business Analytics Applied Machine Learning Introduction to Computing Operation Research Security Analysis & Portfolio Management Advance Corporate Finance
Online	SQL for Data Science (Coursera) Excel/VBA for Creative Problem Solving (Coursera) Agile Analytics Elementary Data Structures & Algorithms (iBHubs) AWS Fundamentals: Going Cloud-Native (Coursera)
Skills	<ul style="list-style-type: none"> Technical Skills: PYTHON (Numpy, Pandas, Scikit-Learn, Matplotlib, Seaborn, Statmodels) R SQL MS EXCEL (VBA) Soft Skills: Critical Thinking, Problem Solving, Team Work, Effective Communication, Adaptability

POSITION OF RESPONSIBILITY

- Senior Executive, Start-Up Internship Program (SIP) ECell IIT Kanpur** (Jun'19 - April'20)
Led a 2-member team, converted 5/75+ Startup companies to offer internship. Co-Conducted intern preparation, resume making workshops and resume verifications with participation of 500+ students. Organized online interviews for 100+ candidates.
- Internship Coordinator, MTech IME IIT Kanpur** (Jun'19 - May'20)
- Member, Department Academic Program Committee, IIT Patna** (April'16 - Mar'17)
- Student Head, Unnat Bharat Abhiyan Cell, IIT Patna** (April'15 - Mar'16)
Co-Founder of Adhyayan Utsav, Founder of Rural Fair
- Media and PR Coordinator, Student Council of Mechanical Engineers (SCME), IIT Patna** (April'15 - Mar'16)
Led a 3-tiered team with 50+ volunteers across 3 verticals. Promoted 30+ events, 15+ lectures and 10+ workshops round the year.

ACHIEVEMENT AND EXTRA CURRICULAR ACTIVITIES

- KPMG certified Lean Six Sigma Green Belt (Credential ID: DL022016216)
- Merit Cum Means Scholarship, IIT Patna (2014-2015)
- Secured AIR 3 Chemistry, National Science Talent Search Examination (Jan-2010)