Piyush Ranjan

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Education

INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR **2017 – 2021**

Bachelor of Technology in Industrial and Systems Engineering (2nd Year Undergraduate)
CGPA: 8.57/10

Project :

Inventory Management Gold Winning Open IIT team (amongst 50 intra IIT teams)

- Created Mathematical model to optimize Inventory policy and minimizing the probability of stock-outs while balancing its inventory costs. Applied **Just in time** inventory system to calculate safety stock and Reorder level on forecasted data.
- Employed **Exponential smoothing** Model to the given data of sales of medicine to predict the sales pattern in coming years.

Predict News Category (NLP) Qualified 3rd stage (Kshitij IIT Kharagpur Data Challenge)

- NLP model to predict the news category using **SVM** and **tf-idf** vectorizer. Used Author name for feature engineering to get better results and get an edge amongst others.

Predict Level of Congestion in Network Bronze Winning Interhall team (amongst 15 selected intra IIT teams)

- Analyze data consumption by different network towers at different times to predict the possibility of congestion in network.
- Applied Maximum Vote classifier on **SVM-rbf kernel, XGBoost, LightGBM** and **ANN** to create robust model.

Association Rule Mining (Ongoing)

- Extracting Good rules by doing **Association Rule Mining** on **T40I10D100K** dataset using **Particle Swarm Optimization.**

Trip Ledger https://github.com/piyush27ranjan/Trip-Ledger

- A Web app for online ledger using ReactJS, ExpressJS, MongoDB and Docker for deploying the app.

Courses :

Machine Learning (Stanford University)	Product Design and Process Planning	NLP with Deep Learning (Stanford University)
Analytics Edge (EDX)	Operations Research	Linear Algebra
Data Structure and Algorithm	Soft Computing	Deeplearning.ai (Sequence Model)

Skills :

Languages: Python, Javascript, C++/C
Libraries/Frameworks: Scikit, Keras, Tensorflow, Pandas, Numpy, Flask, ReactJS, NodeJs, ExpressJs, MySQL
Tools: MATLAB (Basics), Tableau, GIT, Spyder, Jupyter Notebook, Cplex.
Research Interests: Applied Machine Learning, Statistical Modelling, Optimization and Data Analytics.

Position of Responsibilities :

Secretary, Communiqué (Official Soft Skills Society)	• Supervised team of 21 members, organized over **3 workshops** on soft skills improvement • Managed the Placement Drive, comprising of Mock GDs & Interviews by ERUDITE
Core Team Member, Kharagpur Open Source Society	• Taught JS, python to a class of 120 students in Open Source Summit organized by Kshitij IIT Kharagpur Techno-Management Fest. • Successfully mentored in Kharagpur Winter of Code (Add Cover Art). • Organized Open Source Summit in collaboration with Kshitij IIT Kharagpur.