

# CHAITANYA RAI | 17CH10058



CHEMICAL ENGG. (B.Tech 4Y)
MINOR in COMPUTER SCIENCE & ENGG. (B.Tech 4Y)

EDUCATION			
Year	Degree/Exam	Institute	CGPA/Marks
2021	B.TECH	IIT Kharagpur	8.73 / 10
2016	CBSE Class XII (AISSCE)	Maheshwari Public School, Jaipur	91.4%
2014	CBSE Class X (AISSE)	Maheshwari Public School, Jaipur	9.2 / 10

#### **INTERNSHIPS**

#### Video Analytics | Indicus Software, Pune

May 2019 - July 2019

- Developed a real-time face recognition and motion detection system using dlib and other DNN libraries
- Detected the shapes of the plate and food items using YOLO Darknet, a real-time object detection system
- •Deployed and integrated the above models to Contineo, an IoT platform for automatic billing in the restaurant
- Created age and gender detection model using Caffe framework achieving accuracy above 60%

#### COMPETITION/CONFERENCE

## Inter Hall Data Analytics | IIT Kharagpur | Secured Bronze

February 2019

- Predicted network congestion type for the given data of cellular tower level activity achieving 80.7% test accuracy
- Employed XGBoost, Neural Network, Random Forest and SVM along with feature engineering to improve accuracy
- •Interpreted and analyzed the results of the built model to suggest mitigative measures to prevent the congestion
- •Performed hyperparameter tuning using grid search and Bayesian optimization followed by k-fold cross validation

# NetApp Data Challenge | Kshitij, IIT Kharagpur | Secured Bronze

January 2019

- •Performed text classification on the given data of news headlines and description to predict news category
- •Used TF-IDF features and Topic Modelling for feature extraction and trained model using SVM and Neural Network
- •Used Model Ensembling to improve the accuracy by using predictions from multiple machine learning algorithms

# Open IIT Data Analytics | INS Analytics, Kolkata | Secured Bronze

September 2018

- Employed ARIMA Time Series Model to the given data of medicine sales to predict the sales pattern in coming years
- Deduced interpretation from forecasted data to device Inventory Management Strategy to increase sales and profit
- Done failure modes and effective analysis (FMEA) to identify all possible failures in our proposed model

#### **PROJECTS**

### Prediction of occupational risk | Professor in charge: J.Maiti

August 2018 - December 2018

- Predicted occupational risk in an industry using SVM and Random Forest and done a comparative study
- Used NSGA-II and MOPSO for tuning and optimizing parameters of the algorithm to improve the results of classifier
- •Selected and analyzed the best classifier with the help of Global Criterion Method (GCM) for injury risk prediction

# Green supplier selection with order allocation | Professor in charge: J.Maiti

January 2019 - April 2019

- Applied Z-Number Best Worst Method (ZBWM) as an MCDM technique to weight criteria of several suppliers
- Employed Fuzzy-PROMETHEE and Fuzzy-TOPSIS method to rank suppliers on the basis of given evaluation criteria
- •Used FMOLP as an optimal order allocation method to maximize the profit and allocated orders to various suppliers

### POSITIONS OF RESPONSIBILITY

#### Mentor | Student Welfare Group, IIT Kharagpur

July 2019 - Present

- •Guiding 4 freshers about various opportunities available in the campus and helping them to overcome challenges
- •Helping juniors towards achieving their full potential and excel in academic and extra-curricular activities

#### **SKILLS AND EXPERTISE**

**Programming Languages:** C, C++, Python, R, Octave

Software: MySQL, MS Visio, Tableau, MS-Excel

### **COURSEWORK INFORMATION**

Probability and Statistics | Machine Learning | Programming and Data Structures | Transform Calculus | Numerical Solution of Ordinary and Partial Differential Equation | Deep Learning (Coursera) | The Analytics Edge(EdX)

#### **AWARDS AND ACHIEVEMENTS**

- •Ranked in top 0.5% students in JEE Mains 2017 and in top 2% students in JEE Advanced 2017
- •Won a Silver medal in Inter-Hall Chem Quest competition 2019 by designing DEG transportation system
- Qualified Level-1 of Flipkart Grid Machine Learning/Artificial Intelligence competition

#### **EXTRA CURRICULAR ACTIVITIES**

- Worked as a volunteer in NSS, IIT Kharagpur and was committed to the welfare of underprivileged children
- Part of gold-winning choreography team of Azad Hall of Residence in Social-Cultural General Championship 2018
- Volunteered in KHOJ-2018, an annual treasure hunt competition conducted by Azad Hall of Residence