



EDUCATION

Year	Degree/Exam	Institute	CGPA/Marks
2022	B.TECH	IIT Kharagpur	9.25 / 10
2018	All India Senior School Certificate Examination	SOUTH POINT HIGH SCHOOL	94.8%
2016	All India Secondary School Examination	SOUTH POINT HIGH SCHOOL	10 / 10

INTERNSHIPS

Software Development Intern | Mastercard

May 2021 - July 2021

- Implemented the idea of **Microfrontend** to make a web application in **Single Spa** framework of **Node JS** which supports various javascript frameworks among the different Micro Applications. The individual Micro Applications had separate independent backends.
- The Root application had the feature in which multiple Micro Applications could communicate with each other and share relevant data.
- Added translations using the **Microsoft Azure Service** and **NGX translate** feature of **Angular framework** in the Customer Service website.
- Made a **Command Line Tool** in **Node JS**, which facilitates creating and updating the latest Spring Boot application starter files.

PROJECTS

Prediction of Media Bias From User Sentiment in Twitter

Jan 2021 - Apr 2021

(Term project for AI and Ethics course under Prof. Animesh Mukherjee, IIT Kharagpur)

- Aimed to predict political inclination of news channels using retweets and corresponding metadata as a proxy measure for political bias.
- Collected tweeters' data of extreme media channels, encoded them using **Sentence-BERT** and labelled them as **liberal** or **conservative**.
- Implemented a **Neural Network** model for **73.2%** accuracy, analysed tweets data for different news channels, and predicted bias using it.
- Obtained a bias distribution very similar to the app **Media Bias Monitor**, used to measure political bias in Facebook media pages.

Chat Application

Dec 2020

- Made a small-scale multi-user chat application that uses RSA based **end-to-end encryption** and features passwordless login.
- The backend is based on **Express JS**, which manages incoming socket connections and implements a **REST API** for managing clients.
- For data persistence, the application uses **Redis**, an in-memory data structure store and **React** was used to design the Frontend.

COMPETITION/CONFERENCE

Data Analytics General Championship 2020, IIT Kharagpur

- Built a method using Machine Learning to predict the electricity consumption demands from three meter readings in five buildings across **26,400** time-stamps, from January-April of a year based on the data of the previous years' April-December.
- Time series data of the five buildings were analysed and holidays were mapped by reflecting on the curve of data with time.
- Double exponential smoothening** was applied to the data and the time windows found were excluded to avoid normalizing them.
- Applied regression based models like Lasso, Ridge, XGBoost and Linear Regression, with **XGBoost** performing the best.

Coding Competitions

- Achieved a Rank of **613** among **7000** global participants in Google Kickstart Round E 2021.
- Qualified for the finals of **Overnite**, a night long **ACM certified** programming contest conducted by Kshitij IIT Kharagpur.
- 4 star coder at Codechef with a rating **1845** (handle->زيدانه07_09) and Expert in Codeforces with a rating **1615** (handle->shirsha).

AWARDS AND ACHIEVEMENTS

- Achieved Department Change from Manufacturing Science and Engineering, owing to being among the top **5%** students of the batch.
- Secured All India Rank among top **0.62%** in JEE Main 2018 and All India Rank among top **1.83%** in JEE Advanced 2018.
- Secured Rank **47** among **0.1** million candidates (**top 0.047%**) in West Bengal Joint Entrance Examination 2018.

SKILLS AND EXPERTISE

Programming Languages: C | C++ | Python.

ML and Data Analytics Framework in Python: Scikit-learn | Scipy | TensorFlow | Pytorch | Numpy | Pandas | Matplotlib | Seaborn.

Web Development Technologies: HTML 5 | CSS 3 | JavaScript | TypeScript | React | Angular | Node JS | Express | Redis | MongoDB.

COURSEWORK INFORMATION

Academics: Artificial Intelligence | Data Analytics | AI and Ethics | Image Processing | Computer Architecture and Operating Systems | Algorithms 1 | Programming and Data Structures | Digital Electronics | Transform Calculus | Probability and Stochastic Processes.

MOOCs: Deep Learning and Machine Learning, Stanford | Reinforcement Learning, NPTEL | Algorithms Part 1, Princeton University.

CERTIFICATIONS

- Completed **IEEE Certified** course on **Machine Learning** conducted by Winter School of AI and Robotics, IIT Kharagpur in 2019.
- Completed **The 2021 Web Development Bootcamp** online course instructed by Angela Yu in Udemy.

POSITIONS OF RESPONSIBILITY

Student Wellness Group Mentor

- Recognised by the **Dean Student Affairs** for mentoring four first-year students under **Student Mentorship Programme**.
- Conducted weekly meetings and guided the students in their curricular and extracurricular activities in their freshman year.

EXTRA CURRICULAR ACTIVITIES

- Represented Lal Bahadur Shastri Hall of Residence in the 2020 **Data Analytics General Championship**, IIT Kharagpur.
- Volunteer at **National Service Scheme (NSS)**, Indian Institute of Technology Kharagpur (2018-2020).