

EDUCATIONAL QUALIFICATIONS

Year	Degree/Certificate	Institute	Performance
2018-2022	B.Tech - Civil Engineering	Indian Institute of Technology, Kanpur	8.4/10
2017-2018	AISSE, XII (CBSE)	Delhi Public School, Jodhpur	97.4%
2015-2016	AISSE, X (CBSE)	Delhi Public School, Jodhpur	10/10

SCHOLASTIC ACHIEVEMENTS

- Secured an All India rank of **7317** in **JEE Advanced 2018** out of **200k** candidates and **7198** in **JEE Main 2018** out of **1.3 million** candidates
- Achieved an International rank of **854** at the 10th **International Olympiad of Mathematics** exhibiting brilliant mathematical skills

WORK EXPERIENCE

Telaverge Communications India Pvt. Ltd. | Data Engineer Intern

May'21 – July'21

Objective	<ul style="list-style-type: none"> To work on the client's telecom data to find insights and anomalies to suggest for its declining subscriber base
Approach	<ul style="list-style-type: none"> Created pipeline configurations for ingesting the data into the Elasticsearch database with the help of logstash Used Kibana as the GUI tool for creating different aggregate and timeline based visualisations to derive interpretations from them. Worked with painless scripting language to create new scripted fields in the kibana Used Elasticsearch's query language (DSL) to create json query files to query the data according to the usecases Integrated with Python libraries like pandas for different business use cases to generate reports and make conclusions
Result	<ul style="list-style-type: none"> Observed various anomalies like missing packets, large number of retry count by customers, ghost calls, network failures, etc. all suggesting the problem in the clients network which needs to be looked into

IIT Kharagpur | ML Research Assistant, Prof. Debasis Samanta, Dept. of CSE

Jan'21 – May'21

Objective	<ul style="list-style-type: none"> To work on the DEAP dataset to analyze and classify human emotions based on Electroencephalography (EEG) signals
Approach	<ul style="list-style-type: none"> Proposed a hybrid feature selection algorithm involving a combination of Mutual information, Feature Importances, LASSO Regularisation and Recursive Feature Elimination for dimensionality reduction and better performance. Used Random Forest, XGBoost, Stacked ensembling algorithms for the classification task with Random forest proving to be the best among all. Used GridSearchCV for the hyperparameter tuning and SMOTE to handle class imbalance Implemented Deep Learning based feature extraction using FFT with CNN and LSTM models for classification
Result	<ul style="list-style-type: none"> Achieved an accuracy of 76.56% with hybrid feature selection as compared to 73.8% without any feature selection Increased the accuracy to upto 82.48% using recurrent neural network based LSTM model

KEY PROJECTS

Auto Document Filing | Web Development | Mentor: Prof. Veena Bansal, Dept. of IME, IIT Kanpur

May'21 - Jul'21

Objective	<ul style="list-style-type: none"> To build a web application based automated system capable of uploading, organizing, securing, capturing, digitizing and tagging the documents working in coordination with a team of 5 members
Approach	<ul style="list-style-type: none"> Designed the web application using Django as the backend framework with the help of HTML, CSS and javascript libraries Pre-processed,cleansed and parsed the documents using regular expression and natural language processing libraries and tools like NLTK, spacy, TF-IDF, etc. to extract and store all the essential information in the MongoDB database Created a search engine capable of accessing the required documents with various search filters along with the auto-complete suggestion feature using jQuery and highlighting of the searched text in the queried documents by user

Captcha Solver | Self Project, Deep Learning

June'20 – July'20

Objective	<ul style="list-style-type: none"> To build a captcha solver application to ease the process of decoding captchas using deep learning
Approach	<ul style="list-style-type: none"> Used OpenCV to detect and separate the captcha image into different chunks using thresholding and contour detection Used keras' ImageDataGenerator for Data Augmentation of the images to diversify the training dataset Trained the dataset using Convolutional Neural Network model with keras tuner used for hyperparameter tuning
Result	<ul style="list-style-type: none"> Displayed the predicted captcha using OpenCV with an accuracy of upto 99.20% on the test data

SKILLS

- Programming:** C, C++, Python, R
- Analytics:** SQL, ELK Stack(Elasticsearch, Logstash, Kibana), MongoDB
- Utilities and Libraries:** Git, Excel, Keras, OpenCV, Scikit-learn
- Web:** Django, HTML, CSS, Bootstrap

RELEVANT COURSEWORK

*online **ongoing

Data Structure and Algorithms(A)	Machine Learning with Python*	Applied Probability and Statistics(A*)
Fundamentals of Computing	Introduction to Data Science in Python*	Linear Algebra and ODE
Microeconomics(A)	Introduction to Deep Learning and Neural Networks*	Project Management**

POSITIONS OF RESPONSIBILITY

Captain, Institute Hockey Team | Games and Sports Council, IIT Kanpur

Apr'20 – Apr'21

Leadership	<ul style="list-style-type: none"> Entrusted to be in charge of the post at the end of my 2nd year itself for exhibiting excellent performances and leadership skills in Inter IIT Sports Meet 2019 and Udghosh'19(Silver) to lead the team with more than 40+ members
Initiatives	<ul style="list-style-type: none"> Worked with team secretaries to attract PG students and freshers from a batch of 1000+ for promotion of hockey culture Organised monthly team meetings, workout sessions, fitness programmes, competitions, talk sessions by expert trainers and alumni for freshers and other junior batches with the help of Games and Sports Council