

AMAN JAIN

Senior Undergraduate - Civil Engineering
Minor in Industrial and Management Engineering
Indian Institute of Technology Kanpur

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ACADEMIC QUALIFICATIONS

Year	Degree	Institute	Performance
2019 - 2023	B.Tech Civil	Indian Institute of Technology Kanpur	7.9/10.0
2019	Class XII (CBSE)	DAV Public School, Kota	92.8%
2017	Class X (CBSE)	DAV Public School, Kota	10.0/10.0

SCHOLASTIC ACHIEVEMENTS

- Secured **All India Rank 3812** in **JEE Advanced 2019** among the 0.2 million successful candidates in JEE Mains
- Secured **All India Rank 8898** in **JEE Mains 2019** among the 1.2 million aspirants all over the country
- Received **SURGE IITK fellowship**, given to top 200 students among more than 2000 applicants across India in 2021

WORK EXPERIENCE

SURGE IIT Kanpur | Yoga Recommendation System 🔄

Jun'21 – Aug'21

Research Intern, Supervisor Prof Veena Bansal

- Developed an ML-Based Recommendation System for yoga asanas based on benefits sought by the user
- Designed the **ER Diagram** and **Relation Schema** of the database and implemented it using **SQL**
- Created a website using **HTML**, **CSS** and **JavaScript** for the frontend and **Laravel** for the backend
- Integrated an **NLP Model** that predicts the **top 5** yoga asanas out of **226 asanas** with an **accuracy of 87%**

PROJECTS

Credit Card Fraud Detection | Self Project 🔄

Jun'22 - July'22

- Developed a model to classify fraud transactions from an **imbalanced dataset** with **0.17% fraud cases**
- Employed algorithms like **Random Undersampling**, **SMOTE** and **ADASYN** to handle class imbalance
- Applied ML algorithms including **Logistic Regression**, **XGBoost** and **Decision Tree**, achieving a **recall of 90%**

Stock Price Prediction | Self Project 🔄

Feb'21 - Mar'21

- Developed an **LSTM Model** to forecast the stock prices of Big Tech companies for the subsequent week
- Web Scraped data using **Selenium WebDriver** and **BeautifulSoup** and performed exploratory data analysis
- Utilized **ARIMA** as a baseline and **reduced** the **RMSE** of predictions by **30%** using a **Deep Learning model**

Model Zoo | Programming Club, IIT Kanpur 🔄

May'21 - July'21

- Explored **Deep Learning Models** and implemented them from scratch using **PyTorch** and **TensorFlow**
- Trained **ResNet-34**, **Inception-V1**, **Inception-V3** on CIFAR-10 dataset & achieved **77%**, **85%** & **83% accuracy**

Escaping The Caves | Course Project, Modern Cryptology 🔄

Jan'21 - May'21

- Decrypted** classical ciphers such as **Substitution** and **Permutation Ciphers** using frequency analysis
- Designed **chosen plain-text attacks** on **modern cryptographic methods** such as **6 round DES** and **EAEAE**

TECHNICAL SKILLS

Programming Languages	C++, C, Python, JavaScript, PHP, SQL, R
Frameworks and Libraries	TensorFlow, PyTorch, Laravel, Pandas, Scikit-Learn, Matplotlib, Numpy
Software and Utilities	BeautifulSoup, Selenium WebDriver, Tableau, Git, \LaTeX , HTML, CSS

RELEVANT COURSEWORK

** : ONGOING, * : ONLINE

- Computer Science**: Data Structures and Algorithms, Modern Cryptology, Fundamentals of Computing
- Mathematics**: Applied Probability and Statistics, Linear Algebra and ODE, Computational Methods in Engineering
- Machine Learning**: Data Mining & Knowledge Discovery**, Neural Networks & Deep Learning*, Sequence Models*

POSITION OF RESPONSIBILITY

Entrepreneurship Cell, IIT Kanpur | Secretary

May'20 - Apr'21

- Assisted in the organization of **Entrepreneurial Extravaganza - India's biggest virtual event (8000+ footfall)**
- Co-organized the first edition of **Entrepreneurial Bootcamp** with the participation of over **500+ enthusiasts**

EXTRACURRICULAR ACTIVITY

- Built an **ornithopter** in **Aeromodelling Club's** event in **Takneek'19**, the Intra-Hall Championship
- Participated in **Photography Club's** event in **Galaxy'20**, the Intra-Hall Media and Cultural Championship