AMAN JAIN

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EDUCATION

Indian Institute of Technology Kanpur	2023
B.Tech in Civil Engineering with a Minor in Industrial and Management Engineering - **CPI: 8.0/10.0**	
DAV Public School, Kota	2019
CBSE Class XII - **Score: 92.8%**	
DAV Public School, Kota	2017
CBSE Class X - **CGPA: 10.0/10.0**	

ACHIEVEMENTS

- Secured **AIR 3812** in JEE Advanced 2019 among the 0.2 million successful candidates in JEE Mains
- Secured **AIR 8898** in JEE Mains 2019 among the 1.2 million aspirants all over the country

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
Frameworks and Libraries	TensorFlow, PyTorch, Laravel, Pandas, Scikit-Learn, Matplotlib, Numpy
Software and Utilities	BeautifulSoup, Selenium WebDriver, Tableau, Git, LaTeX, HTML, CSS

RELEVANT COURSEWORK   *: 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 Inter-Hall Championship
- Participated in **Photography Club's** event in **Galaxy'20**, the Inter-Hall Media and Cultural Championship