

# AMAN JAIN

Junior Year Undergraduate - Civil Engineering

Indian Institute of Technology Kanpur

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## EDUCATIONAL QUALIFICATIONS

Year	Degree	Institute	Performance
2019 - Present	B.Tech Civil	Indian Institute of Technology Kanpur	7.61/10
2019	Class XII (CBSE)	DAV Public School, Kota	92.8%
2017	Class X (CBSE)	DAV Public School, Kota	10/10

## SCHOLASTIC ACHIEVEMENTS

- Received **Summer Undergraduate and Graduate Excellence (SURGE) fellowship** among **200 students** across **India** in **2021**
- Secured **All India Rank 3812** in **JEE Advanced 2019** among the 0.2 million shortlisted candidates
- Secured **All India Rank 8898** in **JEE Main 2019** among the 1.2 million aspirants

## WORK EXPERIENCE

### **SURGE IIT Kanpur | Yoga Recommendation System** 🌐

Jun 2021 – Aug 2021

With **Prof Veena Bansal**, Department of Industrial & Management Engineering, IIT Kanpur

- Worked in a team and developed an **ML-Based Recommendation System** for yoga asanas based on user's medical conditions
- Designed the **Relational Database Schema** for storing asanas & user details and implemented it using **MySQL**
- Created a fully functional website using **HTML**, **CSS** & **JavaScript** for the frontend and **Laravel** for the backend
- Built an **NLP Model** using **Tensorflow** that recommends the top 5 asanas with an **accuracy of 87%**

## PROJECTS

### **Stock Price Prediction** 🌐

Mar 2021

Self Project

- Implemented an **LSTM Model** to predict the stock prices of Apple, Google, Tesla, Microsoft and Amazon for the following week
- Web Scraped stock price data using **Selenium** and **BeautifulSoup** and performed exploratory data analysis
- Utilized **ARIMA** for baseline predictions and improved them using **Deep Learning**, which reduced **RMSE by 30%** on average

### **Escaping The Caves** 🌐

Jan 2021 - May 2021

Course Project under **Prof Manindra Agrawal**

- Decrypted **classical ciphers** such as **Substitution & Permutation Ciphers** using frequency analysis methods
- Studied and designed **chosen plain-text attacks** on weaker forms of **modern cryptographic methods** such as **DES** and **EAEAE**

### **Model Zoo** 🌐

May 2021 – July 2021

Programming Club, IIT Kanpur

- Studied and implemented **Deep Learning Models** using **PyTorch** and **Tensorflow** from research papers
- Models include **ResNet34**, **Inception-V1** and **Inception-V3** for Image Classification and **ESRGAN** for Super-Resolution

## TECHNICAL SKILLS

**Programming:** Python, C++, C

**Machine Learning:** Tensorflow, PyTorch, Pandas, Scikit-Learn, Matplotlib, NumPy

**Development:** Laravel, PHP, JavaScript, MySQL, HTML/CSS

**Miscellaneous:** BeautifulSoup, Selenium, Git,  $\LaTeX$

## RELEVANT COURSEWORK

\*: COURSERA

Modern Cryptology  
Deep Learning Specialization\*  
Real Analysis

Fundamentals of Computing  
Linear Algebra & ODE  
Partial Differential Equations

Natural Language Processing Specialization\*  
Applied Probability and Statistics  
Introduction to Political Philosophy

## POSITIONS OF RESPONSIBILITY

### **Secretary, Entrepreneurship Cell, IIT Kanpur**

May 2020 - Apr 2021

- Worked as a part of the **Business Development team** in conducting various workshops and events
- Assisted in the organization of the first edition 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**

## EXTRA-CURRICULAR ACTIVITIES

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