Aman Jain

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Indian Institute of Technology Kanpur
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Education

Year	Degree	Institute	Performance
2019 - 2023	B.Tech Civil	Indian Institute of Technology Kanpur	7.6/10.0
2019	Class XII (CBSE)	DAV Public School, Kota	92.8%
2017	Class X (CBSE)	DAV Public School, Kota	10.0/10.0

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 a position in the **Top 1%** in **JEE Main 2019** among the 1.2 million aspirants

Work Experience

SURGE IIT Kanpur | **Yoga Recommendation System** Jun 2021 – Aug 2021
Research Intern, Supervisor Prof Veena Bansal Remote

- Developed a **Machine Learning-Based Recommendation System** for asanas based on medical conditions of the user
- Designed the **Entity-Relationship Diagram** and **Relation Schema** of the database and implemented it using **MySQL**
- Created a website using **HTML**, **CSS** and **JavaScript** for the frontend and **Laravel** for the backend
- Built an **NLP Model** using **TensorFlow** that predicts **top 5 asanas** with an **accuracy of 87%** and integrated into the website

Projects

Stock Price Prediction Mar 2021
Self Project

- Developed an **LSTM Model** to forecast the stock prices of Apple, Google, Tesla, Microsoft and Amazon for the next 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%**

Model Zoo May 2021 – July 2021
Programming Club, IIT Kanpur

- Studied **Deep Learning Models** and implemented them from scratch using **PyTorch** and **TensorFlow**
- Models include **ResNet**, **Inception-V1** and **Inception-V3** for Image Classification and **ESRGAN** for Super-Resolution

Escaping The Caves Jan 2021 - May 2021
Course Project under Prof Manindra Agrawal

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

Technical Skills

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

Relevant Coursework

- **Computer Science** : Modern Cryptology, Fundamentals of Computing
- **Mathematics** : Applied Probability and Statistics, Linear Algebra and Ordinary Differential Equations, Real Analysis
- **Coursera** : Neural Networks and Deep Learning, Convolutional Neural Networks, Natural Language Processing in TensorFlow

Positions of Responsibility

Entrepreneurship Cell, IIT Kanpur | Secretary May 2020 - Apr 2021

- 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-IITK Science and Technology Championship
- Participated in **Photography Club's** event in **Galaxy'20**, the Intra-IITK Media and Cultural Championship