

SRAJAN JAIN

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Third Year Undergraduate

🌐 SrajanJain1 | in Srajan Jain

Department of Civil Engineering

Minor : Industrial and Management Engineering

Education

Year	Degree/Certificate	Institute	CPI/%
2019 - 2023	B.Tech	Indian Institute of Technology Kanpur	8.65/10
2019	Class XII (CBSE)	Sanskar Public School	89.60%
2017	Class X (CBSE)	Little Angels High School	10/10

Achievements

- Secured All India Rank **4536** in **JEE Advanced 2019** among more than 0.24 million shortlisted candidates
- Secured All India Rank **10134** in **JEE Main 2019** among more than 1.2 million shortlisted candidates
- Qualified for the 2nd stage of **NTSE(National Talent Search Examination)** from the state of Madhya Pradesh
- Highest rating of **1672 (Expert)** on codeforces (Handle: *Demiurgic*), solved more than **600 problems**

Key Projects

🔗 **SPEECH EMOTION RECOGNITION** | Brain and Cognitive Society, IIT Kanpur May'21-Jul'21

- Classified audio files of 24 different actors (12 male and 12 female) from the **RAVDESS** dataset into **8 different emotions**
- Analyzed different audio signals by plotting their waveforms and padded all audio files to make them equal in duration
- Utilized **Librosa** library to extract features of audio clips like **MFCC**, **chroma frequency**, and **mel spectrogram**
- Deployed **MLP**, **CNN**, and **LSTM** models to attain test set accuracies of **71.18%**, **79.51%**, and **73%**, respectively

🔗 **EFFECT OF IMMIGRATION ON UNEMPLOYMENT** | HSO201, Prof. S.K. Mathur Jan'21-May'21

- Analyzed the unemployment rate in Canada on three past variables **per capita GDP**, **Hourly wage rate**, and **Net Migration rate**, based on the **methods and algorithms** of a similar study on Australia (*base paper link*)
- Implemented the **Dickey fuller Test** to check **stationarity** and decide which time series regression to employ
- Accurately predicted the decrease in the **unemployment rate** with an increase in **net migration rate** using the **Vector Autoregressive model (VAR)**, and contributed to the *term paper*

🔗 **DJANGO - CUSTOMER MANAGEMENT PLATFORM** | Self project Jun'21-Jul'21

- Developed a customer management app where users can create, update, delete, filter orders and can check delivery status
- **Designed** a user registration and login system and added **password reset** functionality using **Django authentication**
- Assigned separate groups to users and managed access permissions using parameterized **decorators**
- Developed the **frontend** using **Bootstrap** and deployed the project on a **live server** through **Heroku**

🔗 **TRAFFIC SIGNS CLASSIFIER** | Self project Jul'21

- Trained **CNN model** to classify 43 traffic signs utilizing more than **50,000 images** present in the traffic sign dataset
- Preprocessed images and implemented **dropout** along with **L2 regularization** to optimize the performance of the model
- **Obtained** accuracies of **93.16%**, **98.20%**, and **93.24%** on training data, validation data, and test data, respectively

Technical Skills

Programming: C, C++, Python, Julia

ML: Numpy, Pandas, Matplotlib, Scikit-Learn, TensorFlow, Keras

Utilities: Git, CAD, Windows, L^AT_EX

Web: HTML, CSS, Javascript, Bootstrap, Django, ReactJS

Positions of Responsibility

SENIOR EXECUTIVE | Startup Internship Program, Entrepreneurship Cell, IIT Kanpur May'20-May'21

- Directly contacted **Founders and Co-Founders** of various startups worldwide and helped them hire Interns from IITK
- Was part of the team responsible for **authorizing and verifying** resumes of more than **500 students**

SECRETARY | Aeromodelling Club, IIT Kanpur Apr'20-Apr'21

- Organized **Airiddle** Quiz event for fresher students witnessing participation of more than **100 teams** and **500 students**
- **Authored** articles on different kind of Aircraft and posted them through the club's social media accounts

Relevant Courses

A - Excellent performance

Applied Probability and Statistics (A)	Computational methods (A)	Introduction to Electronics (A)
Data Structures & Algorithms (ongoing)	Fundamentals of Computing	Geoinformatics (A)
Introduction to Microeconomics	Topics in Managerial Economics	Linear Algebra & ODE

Miscellaneous

- Represented IIT Kanpur in **Udghosh'19** (Sports Fest IIT Kanpur) in **Aquatics Events**
- Participated in **Aagaz'19** (Inter pool Games and Sports competition) in **Chess** and **Waterpolo** events
- Doubt solving expert at **chegg.com** with an expertise in Chemistry subject.
- Participated in **Aeromodelling** events in **Takneek'19** and created an **Ornithopter** which flies by flapping its wings.