Varun Lahoti

2nd Year Undergraduate
Department of Agriculture and Food Engineering

Email : varunlahoti2000@gmail.com
Phone : +91-8770844641

Academic Qualifications

Year	Degree/Certificate	Institute	CPI/%
2020 - Present	B.Tech	Indian Institute of Technology, Kharagpur	8.66/10
2019	CBSE(XII)	Holy Cross Senior Secondary School Kapa, Raipur	96%
2017	CBSE(X)	Holy Cross Senior Secondary School Kapa, Raipur	10/10

Scholastic Achievements

- Secured **All India Rank 7754** in **JEE Advanced 2019** among the 1.6 Lakh shortlisted candidates.
- Received the **School topper award** for securing rank 1 in 2018-19 academic session.
- Among the top 0.1% of the 1 million applicants in JEE Mains 2019.
- Secured **Rank 1** in the whole school for **SOF International Mathematics Olympiad(IM0)**.

Key Projects

- **Big Mart Sales Problem**
  - Predicting the sales of each product of an outlet
    - Used **LabelEncoder** for text features and **MinMax scaling** for normalization of feature scale.
    - Implemented **Random Forest Regressor** (with max depth = 5) algorithm to achieve RMSE score of **1153.006**.
- **Digit Recognizer Problem on Kaggle**
  - computer vision fundamentals with the famous MNIST data
    - Used **MLP classifier** to achieve an accuracy of **0.97**.
    - The activation function was **Relu** with alpha=0.001.
- **Image Classification**
  - Binary Image classification
    - Classified images into Santa or Not Santa using **Keras** framework and **Convolutional Neural network ..**
    - Implemented **LeNet** CNN architecture with **Adam** optimizer and **Softmax** and **Relu** as activation functions.
    - Increased the quality of data set using **Data Augmentation** Technique and Achieved classication **accuracy** of **97.4** percent

  - Multi Image classification
    - Predicting both Colour and clothing type using **Keras** framework and **Convolutional Neural network ..**
    - Used **SmallerVGGNet** CNN architecture with **Sigmoid** optimizer and **Relu** as activation functions to achieve accuracy of **98.42** percent.
- Created a part of the website of **India's largest Space Technology Fest - National Student's Space Challenge(NSSC).**

Technical Skills

- **Programming Languages:** C++, HTML, OCTAVE, Python, CSS, Bootatrap, PHP and MYSQL.
- **Software and Libraries:** Jupyter notebook , Pandas, Numpy, Matplotlib , Scikit learn , Adobe Photoshop.

Positions of Responsibility

- **Sub-Head at National Student's Space Challenge** (*Jan'2021 Present*)
  - Member of the Web team which is responsible for making the website of the fest and the society.
  - Member of Design team which is responsible for making posters for the fest and the society.

Relevant Courses

* Data Structure and Algorithms(ongoing) * Probability and Statistics(ongoing) * Applied Machine Learning in python * Machine Learning, Coursera,Stanford university * Beginning C++ Programming - From Beginner to Beyond(Udemy)	* Introduction to Data Science in Python(Coursera) * Applied Plotting,charting and data representation in python(coursera) * Applied text mining in python * Design and analysis of algorithms * Introduction to economics(ongoing)

Extra-Curricular Activities

- Part of Volleyball team in General Championship..
- Active member in cultural events of RadhaKrishnan Hall of Residence including Illumination.
- Participated in Indian Case Challenge(ICC) - 2021 conducted by Business Club of IIT KHARAGPUR.