# **RATIN KUMAR**

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# **Education**

#### Graphic Era Hill University, Dehradun, India

2021 - present

Bachelor of Technology (B. Tech) in Computer Science | CGPA: 8.3/10

## Paramount Academy, Muzaffarpur, India

2020

• CBSE (Class XII), Aggregate: 70.8%

### Paramount Academy, Muzaffarpur, India

2018

• CBSE (Class X), Aggregate: 78%

**Skills** 

#### **Technical Skills**

**Proficient** in C++, Data Structures, and Algorithms.

Familiar with C, Java, Python, Machine Learning & AI, MySQL, HTML, CSS, JavaScript, Jupyter Notebook, Linux.

Frameworks and Libraries:- TensorFlow.

#### Soft Skills

- Communication (English/Hindi)
- Teamwork & Team Management
- Problem Solving & Critical Thinking
- Decision Making

### **Projects**

**Emojify** | (Tools used: CNN, Transfer Learning, Computer Vision, Tensorflow)

Jun'24

Developed an advanced neural network model to predict emojis based on real-time facial expressions, achieving 98% accuracy.

- This project is purely based on CNN and Computer Vision.
- Created my own dataset and then trained my model with that dataset.
- I mainly considered five emotions (i.e. Angry, Happy, Sad, Neutral, and Shock).

<u>Emotion Detection using Voice</u> | (Tools used: CNN, Transfer Learning, Mel-Scale, Spectrogram, Tensorflow) Dec'23 Developed a model that can recognize a person's 7 emotions (anger, happiness, disgust, neutral, fear, sadness, surprise) by taking his/her voice as input. Emotion is detected based on a person's pitch and tone.

- Used Mel-Spectrogram to extract frequency from my ".wav" file in the form of a spectrogram so that it can be trained on the CNN model, achieving 95% accuracy.
- For testing, input is given by the own side, for recording the voice python with JavaScript is used.

<u>Sentiment Analysis on Hotel Reviews</u> | (Tools used: Machine Learning, NLP)

Jun'23

Conducted a comprehensive sentiment analysis project on hotel reviews.

- Used NLP techniques to analyze hotel reviews and develop a sentiment analysis model classifying sentiments as positive, neutral, or negative.
- Employed Doc2Vec and TF-IDF for feature extraction and evaluated model performance using ROC and Precision-Recall curves.

#### **Academic and Extracurricular Achievements**

### Discipline Committee | Head

Sep'22 - Dec'22

 Played an integral role in the Head of Discipline committee, demonstrating effective leadership and organizational skills by leading and coordinating diverse projects and events.