

# Ripunjay Sharma

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## Educational Qualifications

Degree	Board / University	Completion Year	CGPA/%
Bachelor of Technology(B.Tech) Major in ECE; Minor in CS	Guru Govind Singh IP University	2025	-
Class XII	CBSE	2021	87%
Class X	CBSE	2019	85%

## Internship

### Video Editor, Rising India

(July 2022-August 2022)

- Independently composed video for the occasion of Independence Day using DaVinci Resolve 18 for Rising India consisting of 100+ clips
- The video was posted on the LinkedIn Page of Rising India (44K+ followers) and Treeandhumanknot (9K+ followers) as well as Youtube
- Co-ordinated with multiple leaders to understand the requirements and delivered the video in a short span of 20 days

## Key Academic Projects

### Neural Network Predictive Modeling:

- Used tensorflow and tensorflow hub to build an end-to-end multi-class image classifier on unstructured data to predict dog breed
- Trained sequential neural network with 10000+ images; Evaluated the performance based on **accuracy** and **prediction probabilities**

### API-Based Malicious Activity Detection:

- Used IPv4 Reputation API based on blacklist score to detect whether the IPv4 address is involved in spam/malware
- Used JSON data to detect valid IPv4 addresses and fetch corresponding blacklist score; Successful demonstration for 1000+ addresses

### Blockchain Technology using Zero Knowledge Proof:

- Developed a secure blockchain-based system that enables users to give personal details without exposing any sensitive information
- Used **Fernet** and **RSA** encryption algorithms with **Zero Knowledge Proof** in the backend and **Voila** to implement user interactive interface

## Hackathons

### Smart India Hackathon

- Competed with 80+ internal teams for qualification; Developed a terrain recognition model for the Ministry of Defence
- Performed comparative analysis on various architectures of convolutional neural networks with 83% accuracy through the MobileNetV2 model

### BVCOE Confluence Hackathon (16 hour)

- Secured **4th** Rank out of **300+** participants for prediction of future career options and respected path along with required courses
- Developed user interface using **Mongodb, and ReactJS**; Developed Decision Tree as challenger model for prediction

### BVEST Hackathon (24 hours)

- Secured **9th** Rank out of **200+ teams**; Prepared prototype of an online platform for small-scale vendors to promote traditional items
- Used **Javascript, HTML, CSS, and ReactJS** to create a user interface and NodeJS, and Java for backend system development

### IEEE BVCOE Hackathon

- Competed with **70+ teams** to predict the stock prices of SENSEX using a **machine learning** model analyzing 10000+ data points
- Developed a **Long short-term memory (LSTM)** model to predict stock prices with an **accuracy of 87%**

## Research Paper

### Cryptographic Algorithms in Blockchain: A Comparative Analysis

- Compared multiple cryptographic algorithms such as **RSA, Fernet, and Zero-Knowledge proof** in a secured blockchain network
- Conducted comparative analysis of the algorithms based on **time consumed, system power, RAM, and ROM**
- Used Matplotlib to construct the **bar charts** and assess the performance of the algorithms under review;
- Presented the project to the blockchain expert from IIT Delhi as part of the academic event conducted by **Veeyotech**

## Positions of responsibility

- Conducted the college flagship hackathon as part of the core team, "**EduHack**"; Featured on the "**Bharati News**" channel and magazine
- Captain of the basketball team in the Annual sports fest **Ranbhumi**, with 40+ teams competing across departments; Secured 3rd position
- Led the team in the Smart India Hackathon(SIH) held at all India levels; the Project is sponsored by the Ministry of Defence

## Certifications / Scholastic Achievements

- Blockchain Course (Veeyotech)**  
Properties of **blockchain, bitcoin, and cryptography**, learning about capsulation, design, implementation, and deployment  
Covered details about blockchain construct using Python modules such as **RSA, fernet, and pub-sub**
- Machine Learning and Data Science Bootcamp (Udemy)**  
Covered supervised learning techniques including regression models, classification models, and neural networks
- C++ Data Structures and Algorithms:** Introduction and Data Structure course provided by Coding Ninjas

## Extra Curricular Activities

- Content Creator:** Owner of a YouTube channel with more than 300 subscribers on YouTube (**70k + views**) on **10+** videos
- Secured **State Rank Six** and **Olympiad Rank Eleven** in International Olympiad of English Language by Silver Zone
- Represented RDPS in a Donation Camp conducted for an NGO; Secured a donation of more than **INR 50k**
- Conducted **rallies** and activities for 50 students in **Heritage Club** every quarter along with a year-end presentation
- Won multiple Gold Medals competing with 500+ students in an athletics event organized on Annual Sports Day

## Skills

- Programming:** C, C++, Python, HTML, Java, PHP, MySql, CSS, Solidity, Matlab
- Framework / Library:** Scikit-learn, TensorFlow, OpenCV, Numpy, Pandas, Heatmap, MatPlot
- Languages Known:** Proficiency in English and Hindi, Basic German