



# Vedant P Rajpurohit

Roll No.:210102108

B.Tech - Electronics and Communication Engineering

Minor in Computer Science and Engineering

Indian Institute of Technology, Guwahati

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Github Profile

LinkedIn Profile

## EDUCATION

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
B.Tech. Major	Indian Institute of Technology, Guwahati	9.27 (Current)	Nov. 2021–Present
B.Tech. Minor	Indian Institute of Technology, Guwahati	8.5 (Current)	July 2022–Present
Senior Secondary	Maharashtra HSC Board	91.67%	2021
Secondary	CBSE Board	95.8%	2019

## PROJECTS

- Credit Card Fraud Detection** June 2023  
*Personal Project* github
  - Trained a model from scratch on highly imbalanced anonymized credit card transaction data to classify whether a given credit card transaction is fraudulent.
  - Achieved F1 score of **0.816** on Training set and F1 score of **0.812** on Test set.
- Facial Emotion Classification using Deep Learning** June 2023  
*Personal Project* github
  - Built a Convolutional Neural Network using **TensorFlow** on the facial emotion dataset on Kaggle to classify the facial emotions into one of the seven basic emotions of anger, disgust, fear, happiness, sadness, surprise and neutrality.
  - Achieved a Training set accuracy of **0.83** and Test set accuracy of **0.62** on single emotion detection.
- 8-bit Unsigned ALU Design using Verilog** June 2023  
*Personal Project* github
  - Designed a 8-bit unsigned integer input **Arithmetic Logic Unit** using Gate Level, Register Level and Behavioural Modelling on Verilog HDL.
  - The Arithmetic Logic Unit supports addition, subtraction, multiplication, division and bitwise operations of AND, OR, NAND, NOR

## TECHNICAL SKILLS

- Programming:** Python, C, C++\*, MATLAB
- Libraries:** NumPy, Pandas, Scikit-learn, TensorFlow\*
- Hardware Description Language:** Verilog \* Elementary proficiency

## KEY COURSES TAKEN

- Computer Science:** Data Structures and Algorithms, Theoretical Foundations to Computer Science
- Mathematics:** Linear Algebra\*, Probability & Random Processes\*, Real Analysis
- Electrical and Electronics :** Signals and Systems\*, Circuit Theory\*, Control Systems, Digital Circuits \*
- Audits and Online Courses:** Machine Learning Specialization(by DeepLearning.AI), Deep Learning Specialization(by DeepLearning.AI)[Ongoing] \* Achieved AA grade

## ACHIEVEMENTS

- Achieved an **All India Rank** of **46** in Indian National Chemistry Olympiad 2021
- Achieved a **Nation Top 1%** score in NSEC
- Achieved an **All India Rank** of **650** in Kishore Vaigyanik Protsahan Yojana 2020
- Achieved an **All India Rank** of **5751** in JEE Advanced 2021
- Achieved an **All India Rank** of **2715** in JEE Mains 2021
- Achieved a branch change from **Engineering Physics** to **Electronics and Communication Engineering**

## POSITIONS OF RESPONSIBILITY

- Low Voltage Electronics Subsystem Head** April 2023 - Present  
*Automobile Club, IIT Guwahati*
  - Selected as Low Voltage Electronics Subsystem Head, for leading the Subsystem for developing Shutdown Circuits and other Low Voltage Circuits for Electric Vehicle

## EXTRACURRICULARS

- Cepstrum Mentor:** Inducted and mentored a group of freshers regarding academics, hobbies and the various opportunities open to them in the campus, under Cepstrum(Student Body of EEE Department)