# Mudit Virmani

## Summary

A third year undergraduate, interested in the field of Software Architecture, Machine Learning, Web Development and DevOps. Involved in massive scale technical engineering and challenges. Often collaborating with leadership, bringing a committed attitude, reliability, innovation and strong judgement to the table.

### Education

2020-2024	B.Tech - Chemical Engineering - IIT Dhanbad	(GPA: 7.72/10)
2019-2020	Class 12th - VLM Public School	(Percentage - 93.8)
2017-2018	Class 10th - Chinar Public School	(Percentage - 95.2)

#### Skills

**Programming** C++, HTML, CSS, JavaScript, Python, React.js, Express.js, Node.js

Backend MongoDB, Firebase, Google Cloud

**Technologies** GitHub, MATLAB, Simulink, Data Structures and Algorithms (DSA), Bootstrap, REST APIs, openCV

### Work Experience

#### Mechismu Racing - Python Developer

September 2021 - July 2022

- Developed a python code to train tire data, resulting in reduction of lap time by 3 seconds.
- Formulated the program script of BMS calculations and decided the battery specifications producing an acceleration of 10 units.

#### JP Morgan Chase and Co - Virtual Intern

April 2022 - July 2022

- Fixed minor bugs in 2 different code scripts.
- Implemented JP Morgan Chase frameworks and tools to display stock-price feed visually .

### **Projects**

ISM Booking
Link

- Deployed a MERN-stack based web application which allow users to book hotel rooms from a list of 50+ hotels.
- MongoDB is used for storing databases, login credentials, booking and other storage related details.
- Uses JWT tokens and cookies for login related activities.

#### Video Chatting Application

Link

- Customized a video calling app where users can chat without the need of login.
- Utilizes SocketIO library for establishing communication between 2 users.

## AI Virtual Mouse System

Link

- Created a deep learning based real-time AI virtual mouse system with upto 99 percent efficiency.
- Uses python computer vision library OpenCV to detect 5-finger movements.
- Utilises transformational algorithm to convert co-ordinates of fingertip from webcam to computer window.

### Achievements

- Awarded HacktoberFest Badge for OpenSource contribution 4 pull requests.
- Secured 6th rank overall and 2nd among all IITs in Pi-EV, a competition to conceptualize, design and optimize the powertrain of electric vehicle.
- STSE qualified Among top 1 percent students who appeared for examination.
- Secured 4th rank in Engineering Design Presentation in Formula Imperial 2019.
- Got 2nd position silver medal in District Level Talent Search examination.
- Awarded with level-3 IAYP in 2016.

### Position of Responsibility

Project Manager - Electric Mobility Club, IIT Dhanbad

September 2021 - July 2022

- Eliminated waste in design phase through value stream mapping which reduced the design period by 20 percent.
- Standardized tasks to reduce manufacturing defects resulting in reduction of fabrication time by 1 month.
- Defined and documented Statement Of Work project scope, product scope, cost and schedule estimate.
- Identified work packages and task relationships to make an accurate time-scaled network for schedule and budget estimation.

#### Head of Dept - Steering and suspension - Automotive Club, IIT Dhanbad

February 2022 - July 2022

- Arranged 2 workshops and a technical sessions to teach first year students about steering and suspension.
- Mentored and guided 35-40 juniors related to careers in the domain of automotive engineering.
- Organised 2 technical events and contests during the tech-fest of college.