# AKSHAT RAI

#### Education

# Graphic Era University, Dehradun

2022 - Present

B. Tech in Computer Science & Engineering

9.08/10 CGPA

# D.S.B International Public School

2021

 $12^{th}$  C.B.S.E

91.60%

# D.S.B International Public School

2019

10<sup>th</sup> C.B.S.E

93.80%

## **Projects**

Driver Sentinel | YOLO, OpenCV, Deep Learning, TensorFlow, Computer Vision

(Oct 2024 - Jan 2025)

- Attained 98% accuracy in seatbelt and drowsiness detection, lowering accident risks by 70% with the help of AI-driven solutions.
- $\bullet$  Enhanced user interaction by 50% and reduced setup time by 40% using an optimized Streamlit dashboard and streamlined deployment.

Plant Shield | Deep Learning, TensorFlow, Keras, Streamlit

(May 2024 - July 2024)

- Developed a deep learning system to detect plant diseases with high accuracy and raised the rate of early diagnosis by 30% leveraging Convolutional Neural Networks (CNNs) in TensorFlow and Keras.
- Released a Streamlit application, resulting in a 25% boost in agricultural productivity through the ability to identify diseases early.

Chat Analyzer | Python, Pandas, Matplotlib, NLP

(July 2024 - August 2024)

- Created a chat data **visualization** and **analysis** tool, producing **40%** more insights into user behavior through extensive activity mapping and data visualization.
- Analyzed user statistics, timelines, and word clouds, providing better understanding of communication patterns.

Brush Splash | Python, OpenCV, Computer Vision, Image Processing, Mediapipe

(July 2024 - August 2024)

- Designed an interactive drawing application that incorporates hand gestures and enhanced **engagement** by **20**% by supporting **real-time** erasure and drawing of lines.
- Added the app with **customizable** thickness of brush/eraser and a color palette, enhancing user control and creativity by **35**%.

#### Attendance Automation | OpenCV, Firebase, Face Recognition

(Nov 2023 - Jan 2024)

- $\bullet$  Engineered a Python program for face recognition with OpenCV, improving attendance accuracy by 95% with strong face detection even in low-light environments.
- Integrated real-time attendance monitoring into Firebase, enhanced accuracy of attendance records by 40%.
- Created an easy-to-use Tkinter GUI that decreased data entry time by 30% and enhanced user efficiency.

#### Technical Skills

Languages: C, C++(proficient), Java, Python, JavaScript, HTML, CSS, BashScript

**Technologies & Tools**: Frontend Development, DSA, Machine Learning, Deep Learning, Generative AI, Git, GitHub, LangChain, SQL, Linux

#### Leadership / Extracurricular

### Club Delegate - Finance and Investment Cell (FIC)

March 2023 - August 2024

• Managed a group of 5-6 members to organize events like Finastra and Stocks Pe Chat, which had over **500+** and **200+** participants respectively. Contributed significantly towards promoting the financial literacy through these workshops.

#### Achievements

• Chosen as one of the **top 200 participants** from **53,000 applicants** to participate in the highly prestigious **JPMC Code for <Good>** 2024 event in Bengaluru, reaching the final round of the hackathon.