

# Aviruddh Singhal

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## Education

**Vellore Institute of Technology, Bhopal**  
*B.Tech. in Computer Science Engineering*

[Sept 2022 – Present]  
CGPA: 9.04

## Technical Skills

**Programming Languages:** Python, C++ , C, Java, SQL, JavaScript, HTML, CSS.

**Machine Learning & AI:** LLM, RAG, Reinforcement Learning, OpenCV, Scikit-learn.

**Software & Tools:** Git, GitHub, AWS, MySQL, VS Code, Jupyter Notebook, Google Collab, Streamlit, Gradio.

## Experience

**Intern at AikyamEdge Solutions Pvt Ltd**

[Feb 2025 – Apr 2025]

Role- Full Stack Developer on ProjectGuavaTrips.com

- Leveraged a tech stack including Java (Spring Boot), Next.js, OpenAI GPT (LLM), and REST APIs to implement the system
- Engineered and incorporated an advanced LLM-based contextual messaging platform to deliver highly personalized and adaptive travel suggestions, leveraging up to 5 past user preferences alongside real-time data.
- Enhanced user experience by replacing static hard-coded messages with adaptive, AI-driven responses, projected to increase user engagement by 25%, delivering personalized and context-aware guidance throughout travel planning.

## Projects

**Harvest Hub - AI Driven Agricultural Insights** (Python, Flask, React, AWS, ML)

[Jan 2025 - Apr 2025]

- Developed and launched a user-friendly, full-stack web platform using Python, Flask, and React, delivering real-time, actionable agricultural insights to hundreds of users from backend AI services.
- Designed and deployed a scalable AWS-hosted platform, integrating advanced ML and computer vision models to support 3 distinct agricultural insight categories: crop recommendation, yield prediction, and disease detection.
- Trained and optimized models with over 87,000 leaf images and soil-weather data, achieving 92% accuracy in disease detection, 96% in crop recommendation, and 85% in yield prediction.

**FaceAttend Pro** (Python, OpenCV, Tkinter, Haar Cascade, LBPH)

[Mar 2024 - Apr 2024]

- Developed a real-time desktop application for automated student ID and attendance, processing over 100+ student records to significantly enhance classroom efficiency.
- Achieved 75% facial recognition accuracy with 400 image samples per student, significantly reducing manual errors.
- Integrated robust data storage and retrieval mechanisms for attendance records, leveraging CSV files for efficient logging and easy access, thereby enabling detailed reporting and analysis to inform administrative decisions.

**ASL Translator** (Python, TensorFlow, Keras, OpenCV, Teachable Machine)

[Aug 2023 - Sep 2023]

- Implemented a real-time gesture recognition system using CNNs to translate static American Sign Language (ASL) signs captured via webcam into corresponding English alphabets on-screen.
- Built and annotated a 7,800 image dataset (300 per letter) to train a model on 26 ASL signs, boosting accuracy.
- Attained 90% classification accuracy, delivering an accessible and impactful communication bridge for the Deaf and hard-of-hearing community through gesture-to-text conversion.

## Achievements and Certifications

- Amazon Machine Learning Summer School, 2024:** Awarded a spot in an exclusive 4-week program focused on Supervised Learning, Deep Neural Networks, and Generative AI, chosen from over 60,000 applicants.
- Cloud Computing examination, NPTEL, 2024:** Ranked in the top 1% among 23K+ students, demonstrating strong knowledge of cloud concepts including virtualization and service models.
- AWS Certified Cloud Practitioner (CLF-C02), 2024:** Successfully completed the examination demonstrating proficiency in core AWS services, networking, and security best practices, covering the foundational knowledge for 20+ AWS offerings.

## Extracurricular

- Orchestrated the planning, coordination, and execution of Advitya'24 Annual Cultural Festival, successfully managing all logistical aspects for over 2,000 attendees and ensuring a seamless event experience.
- Spearheaded and successfully executed over 5 expeditions with the Nature & Trekking Club, directly cultivating robust teamwork and enhancing participant resilience in challenging outdoor environments.