Aviruddh Singhal

aviruddhsinghal@gmail.com | +91 7701861295 | Portfolio | LinkedIn | GitHub

Education

Vellore Institute of Technology, Bhopal [Sept 2022 – Present]
B.Tech. in Computer Science Engineering CGPA: 9.05

Technical Skills

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

Machine Learning & AI: LLM, RAG, OpenCV, Scikit-learn, CNN

Software & Tools: Git, 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.