# Aviruddh Singhal

#### **Education**

# **Vellore Institute of Technology**

Bhopal, India

B.Tech. in Computer Science Engineering - 9.03 CGPA

[2022 - 2026]

# **Technical Skills**

**Programming Languages and Web Technologies:** Python, C++, C, Java, HTML, CSS, JavaScript, SQL, Next.js **Frameworks and Libraries:** Django, Flask, Spring Boot, FastAPI, REST API, TensorFlow, Scikit-learn, OpenCV, NumPy **Tools and Platforms:** Git, GitHub, AWS, MySQL, VS Code, Jupyter Notebook, Google Collab, Streamlit, Gradio, **AI & ML:** LLM (OpenAI, Anthropic, LLaMA), RAG, Reinforcement Learning, Deep Learning

# **Professional Experience**

#### Intern at AikyamEdge Solutions Pvt Ltd

[Feb - Apr, 2025]

Role- Full Stack Developer on Project GuavaTrips.com

- Tech Stack: Java (SpringBoot), Next.js, OpenAI GPT(LLM), REST APIs.
- Designed and integrated an LLM-based contextual messaging system that generated personalized and adaptive travel suggestions based on user past and current preferences
- Enhanced user experience by replacing static hard-coded messages with adaptive, AI-driven responses, delivering personalized and context-aware guidance throughout the travel planning workflow

### **Academic Projects**

# Harvest Hub - AI Driven Agricultural Insights

[Jan-Apr,2025]

- Tech Stack: Python, Flask, React, AWS (Elastic Beanstalk, EC2, S3), Random Forest, Decision Tree, Transformer Model
- Engineered a full-stack AI-powered web platform providing crop recommendation, yield prediction, and disease detection using structured and image-based ML models
- Aimed at enhancing farmer productivity and sustainability by processing 87,000+ leaf images and soil-weather data (NPK, pH, rainfall) for 92% disease detection accuracy, 98% crop recommendation accuracy and 85% yield prediction accuracy

# Facial Recognition Attendance System

[Feb-May, 2024]

- Tech Stack: Python, OpenCV, Tkinter, Haar Cascade, LBPH
- Built a real-time desktop application for student identification and automated attendance using facial recognition, enabling efficient classroom management
- $\bullet$  Achieved 75-80% accuracy with  $\sim$ 400 images samples per student, significantly reducing manual errors and streamlining attendance logging

ASL Translator [Aug- Sep, 2023]

- Tech Stack: Python, TensorFlow, Keras, OpenCV, Teachable Machine
- Created a CNN-powered gesture recognition pipeline to convert static American Sign Language gestures into English text via real-time webcam input
- Trained on a custom dataset of 7,800 labeled images (300 per alphabet), the system achieved ~90% accuracy across 26 alphabets, enabling accessible gestures to text communication for the Deaf community

#### **Achievements**

- Amazon Machine Learning Summer School (2024): Selected from 60K+ applicants (3,000 chosen) for a 4-week program on Supervised Learning, Deep Neural Networks, and Generative AI.
- **Cloud Computing examination, NPTEL (2024):** Ranked in the top 1% among 25K+ students, demonstrating strong knowledge of cloud concepts including virtualization and service models.
- **Coding portfolio:** 5 Star in Python, 4 Star in SQL & Java, 3 Star in C++; LeetCode 250+ problems solved; GeeksforGeeks 100+ problems solved on data structures and algorithms.

#### Certifications

- AWS Certified Cloud Practitioner, Amazon Web Services
- NPTEL Marketing Analytics, IIT Kharagpur

• NPTEL Cloud Computing, IIT Kharagpur

• AWS Academy Graduate- Cloud Architecting