SRINIVASAN R

AI & ML Developer

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Profile

Skilled AI/ML Developer with a strong focus on developing intelligent, scalable solutions using Python, machine learning, and deep learning. Experienced in building end-to-end AI systems that solve real-world problems and enhance decision-making. Adept at transforming ideas into production-ready models through rigorous experimentation and collaboration. Committed to leveraging advanced technologies to drive innovation, improve efficiency, and deliver measurable impact.

Summary of Technical Skills

- **Machine Learning:** Supervised & Unsupervised Learning (Regression, Classification, Clustering)
- **Deep Learning:** CNNs, RNNs, LSTMs, Transformers
- **Generative AI:** LLMs, GANs
- **Data Science:** Data preprocessing, analysis, and visualization
- **Programming Languages:** Python, JavaScript
- **Frameworks & Libraries:** TensorFlow, Keras, PyTorch, Scikit-learn, OpenCV, Streamlit
- **Web Development:** React, Next.js, Tailwind CSS, Flask
- **Databases:** PostgreSQL, MongoDB
- **Version Control:** Git, GitHub
- **Tools:** Jupyter Notebook, VS Code, Google Colab

Non-Technical Skills

- Time Management | Critical Thinking | Problem Solving
- Leadership | Adaptability | Teamwork

Experience

Pricol Ltd Automotive industry company , **Deep Learning Engineer Intern**   Feb – May 2024
Duration: 3 months, Coimbatore

- **Telltale Inspection For EOL Testing Using CNN**

  Developed a high-performing image classification system for detecting telltale signs in instrument cluster images using OpenCV and Keras. Implemented robust preprocessing, anomaly detection (brightness, color, segment cutoffs, scratches), and CNN-based classification techniques. Achieved 90-95% accuracy based on dataset quality, with effective data handling via NumPy and scikit-learn, and performance visualization using Matplotlib. Integrated all components into a cohesive and reliable model.

  Role: Deep learning Engineer   **Department:** Manufacturing Dept
  Frameworks: TensorFlow, Keras, OpenCV, Scikit-learn   **Language:** Python

Education

Kathir College of Engineering (Autonomous)   Nov 2021 – May 2025
B.Tech Artificial Intelligence & Data Science

- CGPA: 7.9/10
- **Courseworks:** Python, Machine Learning and Deep Learning Algorithms & Frameworks, Artificial Intelligence, Probability and Statistics, Computer Networks, Database Design, Data Science, Operating Systems.

Projects

Final Year Project   2024 – 2025

- **SignSpell – Speech to Sign Language Using Animated Avatars (Team Player)**

  Finalist | State-Level Innovation Challenge | Niral Thiruvizha 2.O | Hackathon 2025

  Developed a real-time AI-powered system that translates speech into Indian Sign Language (ISL) using 3D animated avatars. Enable inclusive and barrier-free communication for live events, public addresses, and broadcasts, eliminating the need for human interpreters.

  Frontend: Next.js, Tailwind CSS   **Backend:** Flask-SocketIO, Google LLMs

  Database: PostgreSQL with pgvector   **Tools:** Blender, Three.js

- **SCAM Era – DeepFake Detection System (Team Lead)**

  Designed SCAM (Secure Content Authentication Module), a real-time deepfake detection system using an EfficientNet-based ensemble with Siamese training. Achieved top 3% performance on the DFDC Challenge dataset. Built with Flask backend and React.js frontend to ensure fast, accurate video analysis and robust media authentication.

  Frontend: React.js, Tailwind CSS   **Backend:** Flask

  Framework: Scikit-learn, TensorFlow, Keras, OpenCV, PyTorch   **Database:** Google Firebase

Mini Projects

Company-Oriented Machine Learning Project   2023 – 2024

- **HR AI Chatbot using Machine Learning**

  Developed an intelligent HR chatbot using NLTK for natural language processing, enabling intent recognition, query classification, and predefined response generation. Incorporated a feedback loop to update the model with new HR-related data, enhancing adaptability and accuracy over time.

  Language: Python

  Frameworks: NLTK, Scikit-learn, SVM, Flask

Certifications

- Deep Dive in Deep Learning – Scalar
- Introduction to Software Engineering – Coursera
- DevOps – HCL/GUVI

Association

ADEPT Professional Organization at KCE, Coding Club Co-ordinator   2023 – 2024

- As Club Coordinator, I organize activities, coding sessions, and workshops to foster collaboration and enhance members' technical skills.