

# Aniruth Sundararajan

Los Angeles, California, US

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## EDUCATION

### University of Southern California (GPA: 4/4)

MS in Computer Science (Artificial Intelligence)

Relevant Coursework: Foundations of AI, Machine Learning

2025 – 2027

### Shiv Nadar University Chennai (GPA: 9.41/10.0)

B.Tech in Artificial Intelligence and Data Science

2021 – 2025

Relevant Coursework: Data Structures, Analysis of Algorithms, Deep Learning, Machine Learning, NLP, Web Development, Computer Vision, Artificial Intelligence, Reinforcement Learning, Foundations of Data Science

## WORK EXPERIENCE

### Research Intern, Vision and AI Lab, Dept. of CDS, IISc Bangalore

Feb 2025 – Jul 2025

– Developed high-fidelity 3D car model and dynamic scene rendering using 3D/4D Gaussian Splatting, 3D reconstruction, geometric computer vision, and deep learning

### Computer Vision Developer Intern, IIIT Hyderabad

May 2024 – Dec 2024

– Solved classroom group dynamics analysis using deep learning-based multi-person detection, pose estimation, and activity recognition, handling 40+ students simultaneously with 99% object detection mean Average Precision.

### Engineering Intern, Class One Exchange Inc (C1X Inc)

May 2023 - June 2025

– Built an AI-driven automatic ad generation and end-to-end food recognition & recipe recommendation system using deep learning, transfer learning, and curated dataset of 3000+ labeled images.

## PROJECTS

### Real Time Travel Agent [Link](#)

June 2025

Built an AI-driven real-time travel assistant which automates itenary planning, actual hotel and flight availability using Python, RAG, LangChain, LangGraph, vector embeddings, and live data APIs for weather, currency, and attractions.

### AI-Powered Answer Paper Grading and Plagiarism Detection [Link](#)

April 2025

Engineered an AI-driven exam grading system with automated feedback and plagiarism detection using Large Language Models (NLP, deep learning, text similarity), securing INR 10,000 funding for real-world validation.

### OCT Image Classification [Link](#)

June 2024

– Built a deep learning supervised ensemble (ResNet, AlexNet, MobileNet) using PyTorch for OCT retinal scan classification, achieving 99%+ accuracy with transfer learning and CNN-based feature extraction.

### Person Tracking in Crowds using Multiple Cameras [Link](#)

Oct 2023

– Built a unsupervised multi-camera tracking system with cross-camera synchronization and re-identification for real-time person tracking in crowded environments using computer vision and multi-object tracking.

## PUBLICATIONS

### UDC-Mamba: Deep State Space Model for Under Display Camera Image Restoration [Link](#)

Dec 2024

– Achieved State of the Art results with LPIPS of 0.04 in under display camera image restoration using state space models.

### Uf-PromptGAN: A Nighttime Flare Removal Network Using Learnable Prompts [Link](#)

Dec 2024

– Used Uformer to remove the night time flare region, followed by a GAN which uses learnable prompts to inpaint the affected regions

## TECHNICAL SKILLS

- **Programming Languages:** Python, C++, C, Java, R, SQL
- **Machine Learning & AI:** PyTorch, TensorFlow, Keras, OpenCV, NLTK, scikit-learn, LangChain, LangGraph, LangSmith, RAG Systems , Hugging Face
- **Data Science & Visualization:** NumPy, Pandas, Matplotlib, Seaborn, Tableau
- **MLOps & Deployment:** Flask, Streamlit, MLflow, Weights & Biases (W&B), LangSmith
- **Version Control:** Git, GitHub , Poetry
- **Mathematical Foundations:** Linear Algebra, Probability, Statistics, Optimization Methods

## Honors and Awards

- Received Academic Excellence Award for exemplary academic and co-curricular performance at Shiv Nadar University (2021–2025).
- Awarded Merit Scholarship for outstanding academic excellence at Shiv Nadar University Chennai (2022).