Pranoy Radhakishnan

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OBJECTIVE

Passionate about the intersection of math and coding, my love for both disciplines has driven my academic and professional pursuits

EXPERIENCE

Aqxle AI, Bangalore   Feb 2025 - Current

AI Scientist

- Building AI Agents for the marketing flywheel that helps marketers & marketing/media researchers
- Developed custom agents for automated survey data processing, integrating natural language chat interfaces for dynamic insight generation and graph-based visualization.
- Explored and implemented automated EDA methods for faster and more consistent data analysis.

Accessia, Bangalore   April 2024 - Jan 2025

Computer Vision Engineer

- Led computer vision development focused on ML pipeline optimization in C/C++ and CUDA
- Implementing structured pruning, post-quantization, and quantization-aware training (QAT) for high-performance model compression.

First Sense, Bangalore (later acqui-hired by Accessia)   Nov 2021 - Feb 2024

Computer Vision Engineer

- Led the Computer Vision team for *CUBO*, developing animatable 3D morphable models (3DMMs) for MOOCs and online learning platforms using pose and shape estimation techniques.
- Engineered visual enhancement solutions, including whiteboard clarity improvement for virtual classrooms.
- Implemented advanced vision models, such as a modified Detection Transformer (DETR) for 2D human pose estimation, optimizing accuracy and performance.

Neuroplex, Trivandrum   Aug 2018 - Jan 2021

Co Founder/Computer Vision Engineer

- Led the team and developed ML models for *NAZAR*, a Video Content Analysis platform deployed across Indian Oil petrol pumps to monitor customer interactions, analyze customer flow, and enhance safety and security using existing CCTV infrastructure.
- Fine-tuned and deployed computer vision models on edge devices (NVIDIA Jetson Nano, NX Xavier) for real-time inference and scalability.
- Implemented and optimized algorithms for human and vehicle tracking (Deep SORT), license plate recognition, vehicle re-identification, image segmentation, human action recognition, and attribute detection.

Care Stack, Trivandrum

Software Engineering Intern   August 2017 - Dec 2017

OPEN SOURCE PROJECTS

Active contributor to lucidrains repositories, implementing research papers and improving codebases across diffusion models, flow matching, video-action learning, VLA systems, and hierarchical RL.

- **Transfusion-pytorch, Mimic-video, Pi-zero-pytorch, Metacontroller**

Past Personal Projects: Implemented, trained, and benchmarked deep learning models across video classification, object detection, pose estimation, and transformer-based vision systems.

- **cnn-lstm :** CNN–LSTM architecture for video classification
- **pix2seq :** Autoregressive transformer approach that formulates vision tasks as sequence prediction
- **attention-models :** Implementations of various transformer architectures
- **multi-instance-pose-estimation :** Multi-person human pose estimation using Transformers

TECHNICAL SKILLS

- **Languages & Frameworks:** Python, PyTorch, TensorFlow, Keras, C/C++, CUDA, LangChain
- **ML Systems:** Diffusion / Flow Matching, Transformers, Agentic Architectures
- **Optimization & Deployment:** ONNX, TensorRT
- **Databases:** Neo4j, MongoDB, MySQL
- **Mathematics:** Linear Algebra, Multivariable Calculus, Probability & Statistics.

EDUCATION

Indian Institute of Technology, Madras (Part Time)   2022 - Current
Bachelor of Science in Data Science and Programming

Kerala University, Trivandrum
Bachelor of Technology (ECE)   2012 - 2016 (Dropped out)

AWARDS

- **Best Project of the Year** — Rule-based conversational robot
- **2nd Place**, Cyberdome Kerala Competition (Kerala Police)
- **IOCL Startup Funding** — Nationwide selection for AI video analytics platform