

Yash Arora

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Education

2021-2025 **B.Tech, Electronics and Computer Engineering**, *Amrita Vishwa Vidyapeetham*, Kerala, India, CGPA-**8.95/10** The language of instruction is English.

Achievements

- **3rd Position**, NTIRE 2024 Blind Compressed Image Enhancement Challenge

Internship

Jun 2024 - **Computational Imaging Lab (CI Lab)**, IIT Madras, *Research Intern*

Aug 2024 Mentored by Prof. Kaushik Mitra

- Contributed to a project on Image Deflaring using advanced Vision Mamba models, addressing imaging challenges such as flare artefacts.
- Enhanced image clarity by experimenting with and fine-tuning deep-learning models tailored for real-world applications.

Relevant Coursework

CS231n Deep Learning for Computer Vision by Prof. Fei-Fei Li, Stanford University

CS50 Introduction to Computer Science by Prof. David J. Malan, Harvard University

18.06 Linear Algebra by Prof. Gilbert Strang, MIT

Coursera Machine Learning by Prof. Andrew Ng, Stanford University ([Coursera Certificate](#))

Coursera Deep Learning by Prof. Andrew Ng, Stanford University ([Coursera Certificate](#))

Projects

UnifyFormer, [\[link\]](#)

- An advanced architecture for blind image compression, utilizing innovative UnifyBlocks to enhance self-attention mechanisms. This architecture captures and leverages both global and local context information, leading to superior image reconstruction quality.

Computer Vision Models, [\[link\]](#)

- This project encompasses the implementation from scratch of several prominent SOTA Computer Vision models, including ResNet, EfficientNet, MobileNetV2, ResNeXt, GoogLeNet, VGG, and ViTs.
- These models are trained on the CIFAR-10 and CIFAR-100 dataset, and their performance is benchmarked against the original results as presented in their respective research papers.

Jovian Perspective, [\[link\]](#)

- The project aims to develop an easy-to-use desktop application which can process planetary images. It can process RAW images and perform various operations on the image such as auto-enhancement, sharpening, edge detection, increasing brightness, color variation, denoising and gamma correction.

Image Colorization API, [\[link\]](#)

- The Image Colorization API is a RESTful API that allows users to colourize black and white images using a pre-trained machine-learning model. With this API, you can easily integrate image colourization capabilities into your own applications, websites, or services.

SBIR-Baseline, [\[link\]](#)

- The project involves developing a baseline model using Triplet Loss for Fine-Grained Sketch-Based Image Retrieval. This model is trained on the Sketchy-COCO dataset, aiming to improve the retrieval accuracy for sketch-based image searches.

Fashion MNIST Classifier, [\[link\]](#)

- This project focuses on creating a deep learning Convolutional Neural Network (CNN) using PyTorch for the purpose of FashionMNIST image classification. The project's main goal is to train the CNN to accurately categorize different clothing items within the dataset, showcasing the effectiveness of PyTorch in developing a robust model for fashion image recognition.