Abhinav Jindal

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EDUCATION

University of Southern California (USC) Aug 2022 – Present
Master of Science, Computer Science Los Angeles, United States

Indian Institute of Technology (IIT), Ropar July 2016 – May 2020
Bachelor of Technology, Computer Science Punjab, India

- **CGPA**: 9.05/10 (amongst top 10 students)
- **Relevant Coursework**: Machine Learning, Computer Vision, Artificial Intelligence, Multimedia Systems, Image Analysis, Data Structures, Algorithms, Databases, Operating Systems, Computer Networks, Probability Theory, Linear Algebra

EXPERIENCE

Schrödinger Dec 2021 – August 2022
Developer 1 Hyderabad, India

- Improved end-to-end deployment of **LiveDesign Learning**, an interface between LiveDesign and machine learning models.
- Developed various gadgets from scratch and their required backend APIs.
- Tools used: Python, Django, ReactJs, TypeScript, Java, Docker, Kubernetes

D.E. Shaw June 2020 – Nov 2021
Associate Developer Hyderabad, India

- Engineering Owner of **Admin Panel**, worked on improving its tech stack and overall development experience.
- Tools used: Python, Django, ReactJs, TypeScript, Java

Linkbal May 2019 – July 2019
Data Science Intern Tokyo, Japan

- Worked on modeling **Event Cancellation Prediction** and improve the event ranking order according to likelihood of success.
- Tools used: Python, Jupyter Notebook

PROJECTS

Medical Segmentation Decathlon

- Worked on modeling single 3D image segmentation across different tasks and adapting to unseen task without annotations.
- Trained U-NET FCN-based model along with 3D image processing techniques, producing results comparable to state-of-the-art.

Multimodal Learning for Audio-Video Compatibility

- Proposed an approach for predicting compatibility order of YouTube videos to an audio song based on a similarity measure.
- Given an audio and a video, the algorithm extracts various features like emotions, transitions, pace, etc., and measures similarity between these features to find the compatibility order. The algorithm was evaluated using 'number of views' as a metric.

Demosaicing

- Full color image reconstruction from incomplete color samples output from an image sensor overlaid with a CFA.
- Compared various algorithms like NEDI, Kimmel and LMMSE using the PSNR metric.

SKILLS

Languages : Python, Java, Django, React, JavaScript, TypeScript, Docker, PHP, HTML/CSS, PostgreSQL, MySQL
Packages : Pandas, Keras, Tensorflow, Scikit-learn, NumPy, OpenCV
Tools : Jupyter, Colab, MatLab, git, LaTeX, Microsoft Office

ACHIEVEMENTS

- Merit Scholarship at IIT Ropar for securing a rank under 1500 in JEE Advanced
- **AIR-1343** in JEE Advanced (**99.91 percentile**) - in top 0.2% shortlisted candidates (total 1.5 million applicants)
- **State Topper** in JEE Mains (**AIR-2405, 99.83 percentile**)