# **Abhinav Jindal**

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## **EXPERIENCE**

**D.E. Shaw**June 2020 – Present

Associate Developer

Hyderabad, India

- Working in a division Schrodinger on LiveDesign platform built for material science and drug discovery
- Full-stack developer for both back-end and front-end of multiple applications running on an extensive tech stack
- Engineering Owner of **Admin Panel** (an application handling significant configurations of the LiveDesign) and **LiveDesign Learning** (an interface for communication between LiveDesign and machine learning models)

**Linkbal** May 2019 – July 2019

Data Science Intern

Tokyo, Japan

• Worked on designing a model for **Event Cancellation Prediction** using **CatBoost** algorithm and neural networks, improving the ranking order with events most likely to be canceled at the bottom.

#### **EDUCATION**

# Indian Institute of Technology (IIT), Ropar

July 2016 - May 2020

Bachelor of Technology, Computer Science

Punjab, India

- CGPA: 9.05/10, amongst top 10 in the batch
- Relevant Coursework: Machine Learning, Computer Vision, Artificial Intelligence, Multimedia Systems, Data Structures, Algorithms, Databases, Operating Systems, Software Systems, Computer Networks, Probability Theory and Stochastic Processes, Discrete Mathematics, Linear Algebra

## **PROJECTS**

# **Medical Segmentation Decathlon**

- Worked on generalizability of 3D medical image segmentation across 10 different tasks and adapting to unseen task without human annotations.
- Used a 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 multiple 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 based on number of views.

## **Emotional ChatBot**

- · Built a conversational chatbot that generates suitable responses using Sequence to Sequence model.
- Improved it using embedding layer for compactness and attention and teacher forcing mechanism.

## **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 values to determine the better method.

#### **SKILLS**

Languages: Python, Java, Django, React, JavaScript, TypeScript, PHP, HTML/CSS, PostgreSQL, MySQL

Packages: Pandas, Keras, Tensorflow, Scikit-learn, numpy, OpenCV

Tools: Jupyter, Colab, MatLab, git, LATEX, Microsoft Office

#### **ACHIEVEMENTS**

- State Topper in JEE Mains (AIR-2405, 99.83 percentile)
- AIR-1343 in JEE Advanced (99.91 percentile) in top 0.2% shortlisted candidates (total 1.5million applicants).