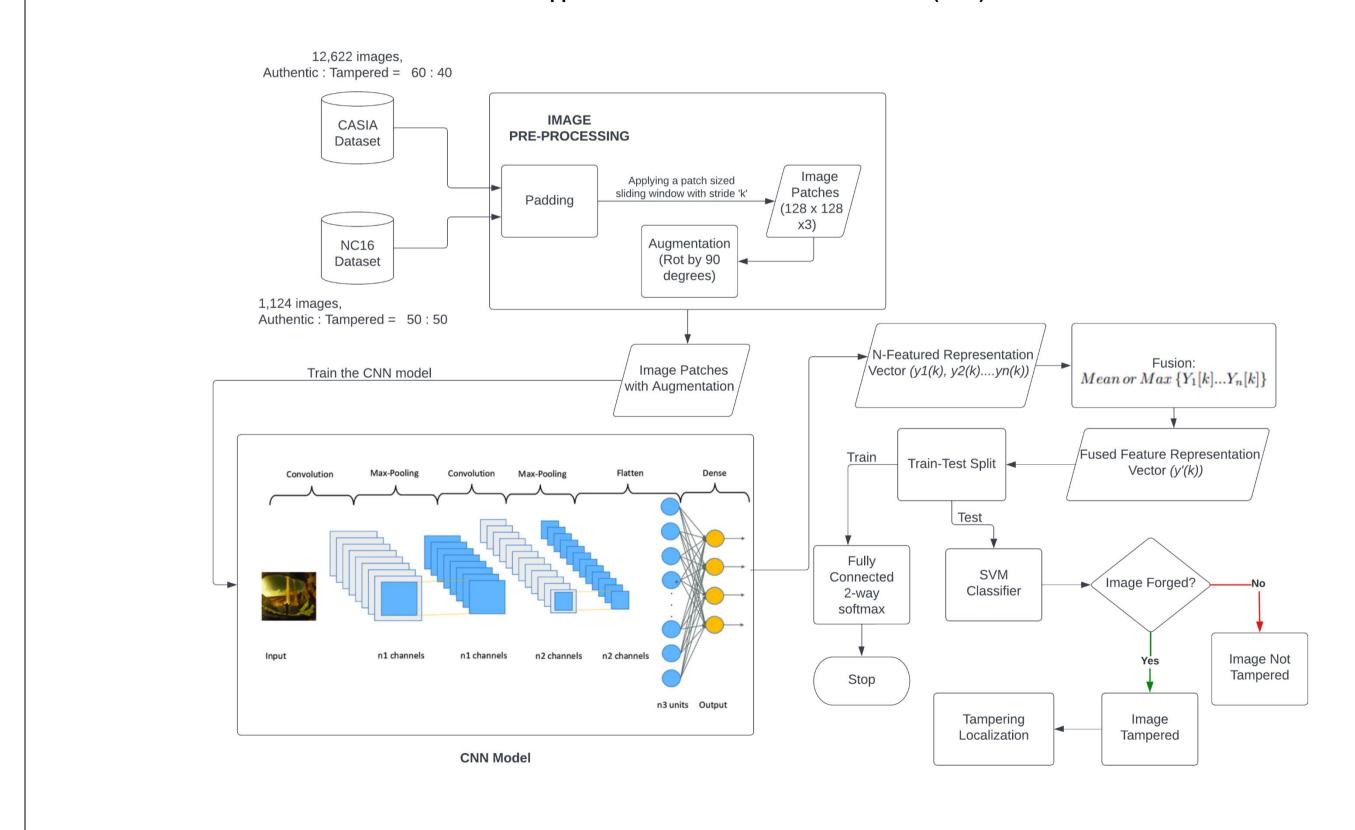
Project Title: A DEEP-LEARNING APPROACH FOR DETECTING SPLICING & COPY-MOVE IMAGE FORGERIES AND IMAGE SELF-RECOVERY



Approach 1: Convolutional Neural Networks (CNN)



Approach 2: Unsupervised Self-Consistency Learning Flickr Photos Subset of Augmentation (Any Random Sampling well-distributed authentic **Images** image dataset) Image-Resizing re-JPEGing Gaussian Blur Localization of **Augmented Training** tampered portion **Images** Determine most Pre-processed Discard EXIF common EXIF attribute values that Images with meta Segmentation using attributes (>= 50000 Mean Shift & occur <=100 times data images) Normalized cut Training Image A Metadata Image A EXIF CameraModel: NIKON D3200 EXIF CameraMake: NIKON CORP EXIF ColorSpace: Uncalibrated EXIF ISOSpeedRatings: 800 Siamese Network EXIF Jospeedratings: a66 EXIF DateTimeOriginal: 2016:04:17 EXIF ImageLength: 2472 EXIF ImageWidth: 3091 EXIF Flash: Flash did not fire Consistent Metadata? Diff EXIF FocalLength: 90 EXIF ExposureTime: 1/100 EXIF WhiteBalance: Auto Diff Resnet-50 Diff Diff Diff Image B Metadata Diff EXIF CameraModel: iPhone 4S EXIF CameraMake: Apple Same Diff EXIF ColorSpace: sRGB EXIF ISOSpeedRatings: 50 Diff EXIF DateTimeOriginal: 2015:07:01 EXIF ImageLength: 2448 Resnet-50 1024 Same Image Patches (128 x 128) EXIF ImageWidth: 3264 EXIF Flash: Flash did not fire 2048 EXIF FocalLength: 107/25 EXIF ExposureTime: 1/2208 EXIF WhiteBalance: Auto Binary 4096 Classification Concatenated Features 8192 Test Images Multi-Layered Perceptron Team Members: Aravind J (2019115017), Krishnan S (2019115047), Pranay Varma Guide: Dr. K. Indra Gandhi (2019115067)