ML MEET:
Introduction to Deep Learning and Convolutional Neural Networks
Details
DAY 1:
INTRO TO ML:
-What it is
- Subdivisions
- Types of learning
- Classification/Regression
INTRO TO NEURAL NETS:
-What are Neural Nets
-Supervised Learning in Neural nets
-Why do we use DL(Graph)
NEURAL NETWORK BASICS:
-Binary Classification
-Logistic Regression
-Gradient Descent
SHALLOW NEURAL NETS:
-Neural Net Rep
-Vectorisation
-Activation Functions
-Backpropagation
DEEP NEURAL NETS:
-Forward Prop
-Why deep representations
-Parameters and Hypermeters
IMPLEMENTATION:
Applying a NN model during which topics like Training/Testing set, Normalization, Regularization, Dropout, Vanishing Grad etc will be covered.

DAY 2:
CNNS:
-Kernels
-Convolution
-Pooling
-Padding
-Strided Convolutions
-Deep CNNs
CASE STUDY:
A browse through different CNN architectures like AlexNet, VGG, Inception, ResNet
Intro to Segmentation and Object Detection(RCNN and YOLO)
IMPLEMENTATION:
Implementing a CNN on the same dataset to show the difference between a basic NN and CNN architecture.
All implementations will be done on Collab.