

Loading the dataset

1. Loaded the Img8 and gtFine dataset.
2. Stored the path of images and mask in a dataframe.
3. Did some preprocessing on the images and mask.

Preprocessing

1. Expanded the dimensions of the masks
2. Normalising the input images.
3. Taking samples of input and mask and storing it for model building.

Encoding

1. Loaded the saved images
2. Encoded the labels into the respected format for model building.

Model Building

1. Used **U-net** architecture with **resnet34**
 - a. Loss = Dice Loss
 - b. Metric = IOU Score, Precision
2. Compiled the model
 - a. Optimizer = Adam
3. Fitted the model with a batch size of 8.

Display Results

1. Graphs → Loss, IOU_Score, Precision
2. Displayed predicted and original output.