Theis title: Building Infrastructure Classification and Detection

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Building infrastructure image classification and detection is an active area of research. There are different types of buildings such as houses, mosques, temples, shopping malls, etc. we are proposing a deep convolutional neural network architecture to classify those images. We also detect the region of interest from the image. In our working procedure, we introduce a new dataset for building infrastructure. In the future, we will increase the categories. Now, the dataset contains four categories are building-house, mosque, temple and tin shed house.





Input: building image

Output: building house Input image Image preprocessing Max pool 1 250x250x32 Max pool 4 31x31x256 Data augmentation Convolutional 2 250x250x64 Dropout 1 31x31x256 Define model architecture Train model Dense 1 512 Convolutional 3 125x125x64 Evaluate model Dropout 2 512 plot loss and Max pool 3 62x62x128 accuracy graph Stop Class probability

Flow chart

Proposed CNN architecture for classification