Image Processing

Airfoil Performance Prediction

Pixel groups showing similar structure

Airfoil surface sections showing similar curvature and slope

Deep CNN

Input Layer
Convolutional/ReLu Layer 1
Max Pooling Layer 1
Convolutional/ReLu Layer 2
Max Pooling Layer 2
Densely Connected Layer
Dropout Layer
Output Layer
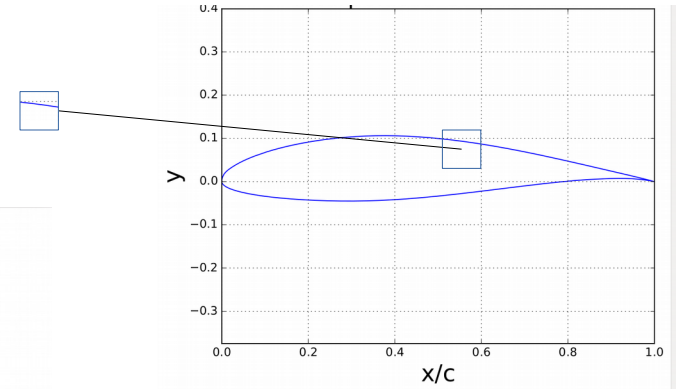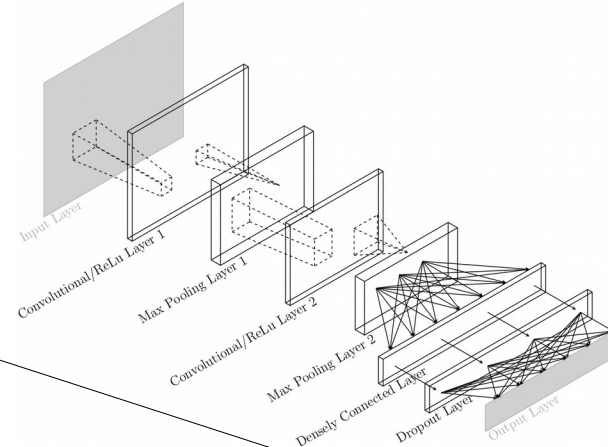
Inspiration from animal visual cortex system

Local Connectivity

Neuron Groupings

Shared Parameters

Convolution

Principle of Stationarity

Various regions of deep CNN gets stimulated for various parts of the image!