**Data science**

|  |  |
| --- | --- |
| **Layers** | * Convolution * Activation * Pool layer [ Avg, Max ] * Dropout * Bach Normalization * Full-connected / Linear * Transpose convolution[deconvolution Upsampling] * 1x1 convolution |
| **Activation** | * sighmoid * Tanh * Relu * linear * softmax |
| **Optimization** | * GD * SGD * MSGD * Mini batch SGD * RMS Prop * AddGrad * AddDelta * ADAM |
| **Regularization** | * (Loss / Accuraly (performanue) |
| **Classification** | * MSE * MAE * Categorical cross Entropy * Precision, Recall, F1 * Confusion Matrix |
| **Object Detection** | * NMS(Soft,Gaussian,Hard), IOU, MAP * Focal loss, Localization loss |
| **Segmentation** | * Jacard Index [IOU] * Pixel accuracy * Dice Coefficient and Dice loss |
| **Model fit** | * Over Fitting, Under Fitting |
| **Models** | * CNN * GRU [Gated Recurrent Unit] * LSTM [long-term Information Preservation] * RNN [Recurrent Neural Network] * GAN |