PPT 1:
Difference between traditional CV and DL based CV
Typical tasks in CV
CV pipeline
Digital image as a 2D function and image representation
Contour detection

PPT 2:
Edge detection and canny
Line detection and hough transform

PPT 3:
Image features
SIFT
Affine transformations

PPT 4:
Intro to CNN
Image augmentation

PPT 5:
Dropout
Feature scaling
Internal covariate shift
Batch normalization
Global average pooling
Transfer learning - AlexNet, VGG16
Pretrained network as classifier
Fine tuning
Model callbacks
ROC AUC

PPT 6:
Inception V1
ResNet
MobileNet

PPT 7:
Visual embeddings
Reverse image search
Face recognition / identification
Siamese network

PPT 8:
Type I and II errors
ROC AUC
Evaluation of models

PPT 9:
Object detection
Bounding box regression
RCNN family
Mean average precision

PPT 10:
YOLOv1

Code

Reverse image search sift
Transformations
Binary and multiclass classification
Advanced CNN archs
Visual similarity search
RoC and AuC analysis