

- Probability distributions ✓
- PCA ✓
- EM ✓
- Logistic Regression ✓
- Backprop work through for simple net ✓
- Clustering algo. ✓
- SIFT, HOG features
- Residual block ✓
- Transpose Convolution
- Object R-CNN, feat, feat, mark ✓
- Focal loss ✓
- RefineNet, FPN ✓
- Normalization (Batch, layer, instance...) ✓
- GAN formulation. ✓
- Losses (Hinge, Huber, L2, xent, Dice) ✓
- ~~Star~~ Segmentation (Panoptic). ✓
- Metrics → ROC, PR, mAP, iou ✓
- Domain Adaptation. ✓
- KL divergence, Entropy ✓
- SVD, Eigen. values. ✓
- Latent factor models ✓
- Optimization Schemes (SGD, Newton, Adam, adapad...) ✓
- LR scheduler (warming, cosine...) ✓
- Dropout ✓
- Graph representation learning (GNNs).

SLAM

- optical flow ✓
- 3D geom (CS231A) ✓
- Deep Lab scene ✓
- Efficient Nets. ✓
- Adversarial ~~Loss~~ Perturbations / Robustness
- Pruning ✓
- Quantization ✓
- Federated Learning

- Knowledge Distillation. ✓
- Sampling Techniques (?)
- Spatial Transformer networks.

- structural Similarity Loss
- Anchor free object detection. ✓
- AutoML

- MobileNets. ✓
- Object Tracking

Boosted Trees ✓

- Recommendation Systems ✓
- Multi-armed bandits. ✓

- Page Rank.
- IR metrics. ✓
- A/B testing, Hypothesis measurement