

1. 神經網路的結構(基礎知識，常見種類、優缺點)
 - o Layers
 - o Loss
 - o Activations
 - o Architectures(LSTM, CNN, Resnet, MobileNet, etc.)
 - o Transfer learning
 - o Attention
 - o Regularization
 - o Autoencoder
2. Optimization
 - o Backpropagation
 - o Gradient descent
 - o 常見用於深度學習的 optimizer
3. 資料處理
 - o normalization
 - o data augmentation
 - o imbalance data problem
4. 實作工具
 - o Programming Language Basics (Python)
 - o numpy, scipy
 - o Deep learning framework(TensorFlow or PyTorch)
5. 機器學習理論
請參考：<https://stanford.edu/~shervine/teaching/cs-229/cheatsheet-supervised-learning> 與
<https://github.com/maxim5/cs229-2018-autumn/tree/main/problem-sets>
6. 機器學習任務之種類與其技巧
請參考：<https://stanford.edu/~shervine/teaching/cs-229/cheatsheet-supervised-learning> 與
<https://github.com/maxim5/cs229-2018-autumn/tree/main/problem-sets>
7. 程式技巧
請參考：http://cs231n.stanford.edu/slides/2021/lecture_6.pdf
8. Optimization basics. For examples, convex and non-convex optimizations. Local minima, global minima, gradient descent algorithms, etc
9. Computer vision basics. For examples, epipolar geometry (e.g., essential matrix and fundamental matrix), camera poses, and optical flow.
10. Image processing basics. For examples, Sobel operator and Hough transform.