CS – 344 Guide 9 – Classification

1. Google’s [Machine Learning Crash Course](https://developers.google.com/machine-learning/crash-course)
   1. [Logistic Regression](https://developers.google.com/machine-learning/crash-course/logistic-regression/video-lecture)
      1. Terms:
         * *Sigmoid*
         * *Log loss*
         * *Entropy*
         * *Likelihood function*
      2. Compare and contrast *logistic* vs. *linear* regression.
   2. [Classification](https://developers.google.com/machine-learning/crash-course/classification/video-lecture)
      1. Terms:
         * *ROC curve*
         * *Prediction bias*
         * *Calibration plot*
      2. Compare and contrast:
         * *regression* vs. *classification*.
         * *accuracy* vs. *precision* vs. *recall*.
   3. [Regularization for Sparsity](https://developers.google.com/machine-learning/crash-course/regularization-for-sparsity/video-lecture)
      1. Terms:
         * *Convex optimization*
2. Google’s [ML Practicum: Image Classification](https://developers.google.com/machine-learning/practica/image-classification) — Study the first two sections: “Introduction” – “Check Your Understanding”.
   1. Why doesn’t simple network like the one we used for the MNIST dataset work in general?
   2. Terms
      1. *Convolution*
      2. *Convolved Feature*
      3. *Pooling*