➔ Say hello to the "Hello, World" of machine learning

➔ Framing: Key ML Terminology

➔ Linear Regression

➔ Training and Loss: Mean square error

➔ NumPy:

- ◆ Official Document: Quickstart tutorial
- ◆ Colab: NumPy UltraQuick Tutorial

➔ Pandas:

- ◆ Official site: 10 min to panda
- ◆ Colab: Pandas DataFrame UltraQuick Tutorial

➔ DATA (Feature Engineering):

- ◆ Colab: Feature Engineering

➔ Training and Test Sets: https://developers.google.com/machine-learning/crash-course/training-and-test-sets/splitting-data

➔ Machine learning approaches: https://en.wikipedia.org/wiki/Machine_learning#Machine_learning_approaches

- ◆ Supervised learning: https://en.wikipedia.org/wiki/Supervised_learning
  - Classification:
    - https://www.tensorflow.org/tutorials/keras/classification

        - https://www.youtube.com/watch?v=bQI5uDxrFfA&list=PLLssT5z_DsK-h9vYZkQkYNWcItqhlRJLN&index=3&t=0s
        - https://www.youtube.com/watch?v=6g4O5UOH304&t=4043s the first hour
        - Classification: True vs. False and Positive vs. Negative: https://developers.google.com/machine-learning/crash-course/classification/true-false-positive-negative
        - Classification: Accuracy: https://developers.google.com/machine-learning/crash-course/classification/accuracy
        - Classification: Precision and Recall: https://developers.google.com/machine-learning/crash-course/classification/precision-and-recall
        - Classification: ROC Curve and AUC: https://developers.google.com/machine-learning/crash-course/classification/roc-and-auc
            - ◆
    - Regression: https://www.tensorflow.org/tutorials/keras/regression

◆ Unsupervised learning: https://en.wikipedia.org/wiki/Unsupervised_learning

- https://www.youtube.com/watch?v=jAA2g9ItoAc&list=PLLssT5z_DsK-h9vYZkQkYNWcItqhlRJLN&index=3
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- Reinforcement learning: https://en.wikipedia.org/wiki/Reinforcement_learning

➔ overfitting and underfitting:

- https://developers.google.com/machine-learning/crash-course/generalization/peril-of-overfitting
- https://www.tensorflow.org/tutorials/keras/overfit_and_underfit
- https://www.youtube.com/watch?v=GMrTBtzJkCg

➔ Neural Networks: https://developers.google.com/machine-learning/crash-course/introduction-to-neural-networks/video-lecture

➔ https://codelabs.developers.google.com/codelabs/tensorflow-lab1-helloworld/index.html?index=..%2F..index#3

➔ Guidelines: https://developers.google.com/machine-learning/crash-course/real-world-guidelines

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➔ Netflix Research: Recommendations

- https://www.youtube.com/watch?v=f8OK1HBEgn0&list=PL_S_WRR3d9p2J5IILdSS2OGCF8s3E0kjQ&index=3
- https://www.youtube.com/watch?v=nq2QtatuF7U

➔ Dynamic Pricing

- https://www.youtube.com/watch?v=SG11SJdPnIU&feature=emb_logo

➔ ML Systems in the Real World: Cancer Prediction

- https://developers.google.com/machine-learning/crash-course/cancer-prediction
- Machine Learning Crash Course

- Andrew Ng:

➔ https://www.youtube.com/playlist?list=PLLssT5z_DsK-h9vYZkQkYNWcItqhlRJLN

➔ Linear Regression: https://www.youtube.com/watch?v=kHwlB_j7Hkc&list=PLLssT5z_DsK-h9vYZkQkYNWcItqhlRJLN&index=4

➔ Logistic Regression | Classification: https://www.youtube.com/watch?v=-la3q9d7AKQ&list=PLLssT5z_DsK-h9vYZkQkYNWcItqhlRJLN&index=32

➔ Logistic Regression | MultiClass Classification OneVsAll:

➔ https://www.youtube.com/watch?v=-EIfb6vFJzc&list=PLLssT5z_DsK-h9vYZkQkYNWcItqhlRJLN&index=38

➔ Overfitting: https://www.youtube.com/watch?v=u73PU6Qwl1I&list=PLLssT5z_DsK-h9vYZkQkYNWcItqhlRJLN&index=39

➔ Neural Networks Representation: https://www.youtube.com/watch?v=1ZhtwInuOD0&list=PLLssT5z_DsK-h9vYZkQkYNWcItqhlRJLN&index=43

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