Used Keras/TensorFlow, CV2.CascadeClassifier, SGD optim.

* Import data
* Use CV2.CascadeClassifier.detectMultiScale to face crop
* CV2.Resize to reshape to 100x100
* CV2.VideoCapture
* Return each frame of the video with face cropped and resized.
* Apply Gaussian Blur to each frame.
* Difference between original and Gaussian Blur is noise.
  + Going from 3 channels to 1 channel
* These noise frames are the features to the model.
* Dropped any videos that did not contain faces.
* Training test spilt. To balance labels, real videos were up sampled 4 times.
* Used from\_tensor\_slices to create data structure for model
* Built custom 3D-CNN
  + SGD(lr = 0.01, decay = 1e-7, momentum = 0.9, nesterov = false)
  + BCE
  + Accuracy
  + 20 epochs, 10 iterations per epoch
  + Only shows results for 4 / 20 epochs
* Build custom GRU
  + Used dropout
  + Trained for 50 epochs, batch\_size = 16. Same loss and optim
* NOTE: Coding process incomplete. Didn’t test on test sets.