

Part 1:

# Import statements

<<<<<<< Write code >>>>>>>

# Load any one of the provided dataset using numpy, pandas etc.

<<<<<<< Write code >>>>>>>

# Divide dataset into training and testing

<<<<<<< Write code >>>>>>>

# Write Keras model LSTM layers and compile the model using SGD

<<<<<<< Write code >>>>>>>

# Use model fit command to train the model

<<<<<<< Write code >>>>>>>

# Compute performance matrices e.g. confusion matrix

<<<<<<< Write code >>>>>>>

# Save or plot error with epochs

<<<<<<< Write code >>>>>>>

Part 2:

# Learn how to use geneticalgs, DEAP or pyswarm

# If you used geneticalgs for HW1, use DEAP or pyswarm for this HW2

# If you used DEAP for HW1, use geneticalgs or pyswarm for this HW2

# If you used pyswarm for HW1, use geneticalgs or DEAP for this HW2

# Optimizers links are provided on the blackboard with examples

<<<<<<< Write code >>>>>>>

# Modify example objective function/fitness function for the selected optimizer

# - Take incoming vector x

# - Extract weights and biases matrices

# - Set weights and biases to the model

# - Do model.predict()

# - Compute error

# - Return to optimizer

<<<<<<< Write code >>>>>>>

# Compute performance matrices e.g. confusion matrix

<<<<<<< Write code >>>>>>>

# Save or plot error with generations/iterations

<<<<<<< Write code >>>>>>>

# Compare performance matrices with Part 1

<<<<<<< Write code >>>>>>>