**Client Speech Recognition : Automatic Lip Reading Model using 3D CNN and GNU**

import numpy as np

import tensorflow as tf

from tensorflow.keras.models import Sequential

from tensorflow.keras.layers import Conv3D, MaxPooling3D, GRU, Dense, Flatten

# Defining the model architecture

model = Sequential()

# 3D CNN layers

model.add(Conv3D(32, kernel\_size=(3, 3, 3), activation='relu', input\_shape=(frames, height, width, channels)))

model.add(MaxPooling3D(pool\_size=(2, 2, 2)))

model.add(Conv3D(64, kernel\_size=(3, 3, 3), activation='relu'))

model.add(MaxPooling3D(pool\_size=(2, 2, 2)))

model.add(Conv3D(128, kernel\_size=(3, 3, 3), activation='relu'))

model.add(MaxPooling3D(pool\_size=(2, 2, 2)))

model.add(Flatten())

model.add(GRU(256, return\_sequences=True))

model.add(Dense(num\_classes, activation='softmax'))

model.compile(optimizer='adam', loss='categorical\_crossentropy', metrics=['accuracy'])

model.fit(X\_train, y\_train, epochs=num\_epochs, batch\_size=batch\_size, validation\_split=0.2)

loss, accuracy = model.evaluate(X\_test, y\_test)

print(f"Test loss: {loss}, Test accuracy: {accuracy}")