MVP

Emotion Detection using Deep Learning

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Introduction

This project will be about building the neural network which classifies the human face images into 5 categories(happiness, neutral, sadness, anger, surprise, disgust, fear) using deep learning models and classification techniques

Baseline

- **Simple Neural Network Baseline**

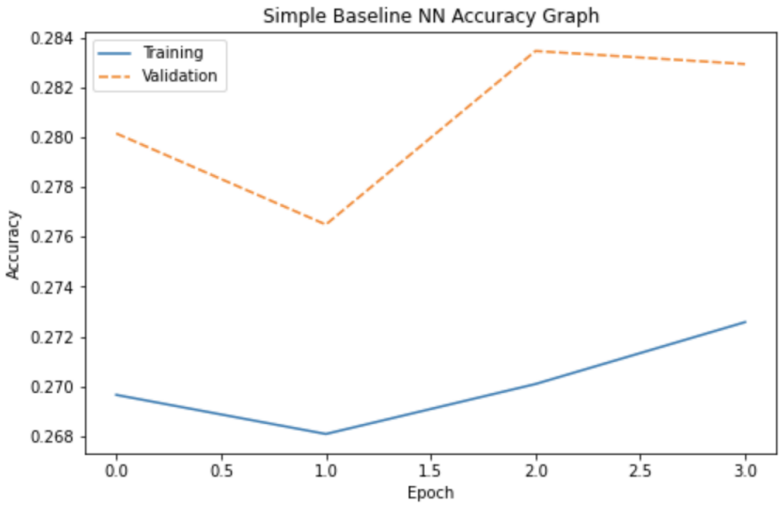
  Training Accuracy: 28.198763728141785

  Validation Accuracy: 28.293022513389587

  Training Loss: 1.7572652101516724

  Validation Loss: 1.7645231485366821

  Train/Validation Diff: -0.09425878524780273



- **Neural Network Baseline**

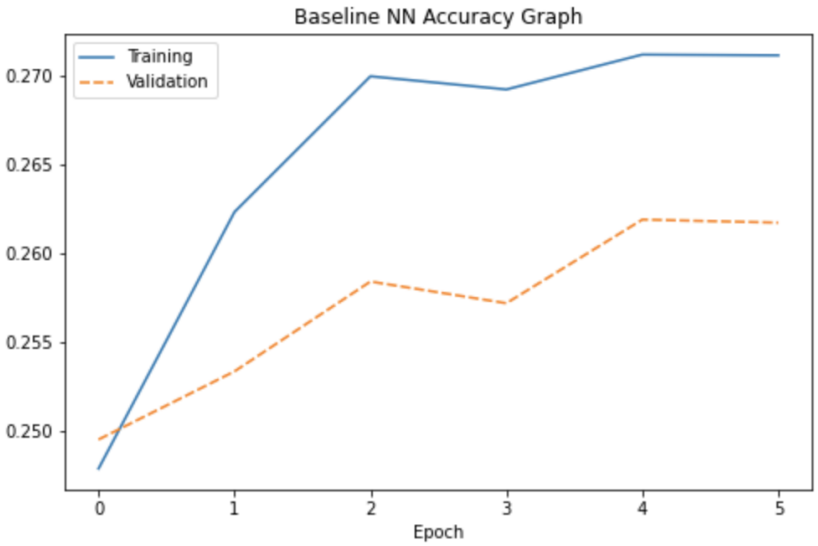
  Training Accuracy: 26.6440212726593

  Training Loss: 1.752709150314331

  Validation Accuracy: 26.1701762676239

  Validation Loss: 1.7598847150802612

  Train/Validation Diff: 0.4738450050354004



- **Simple Convolutional Neural Network Baseline**

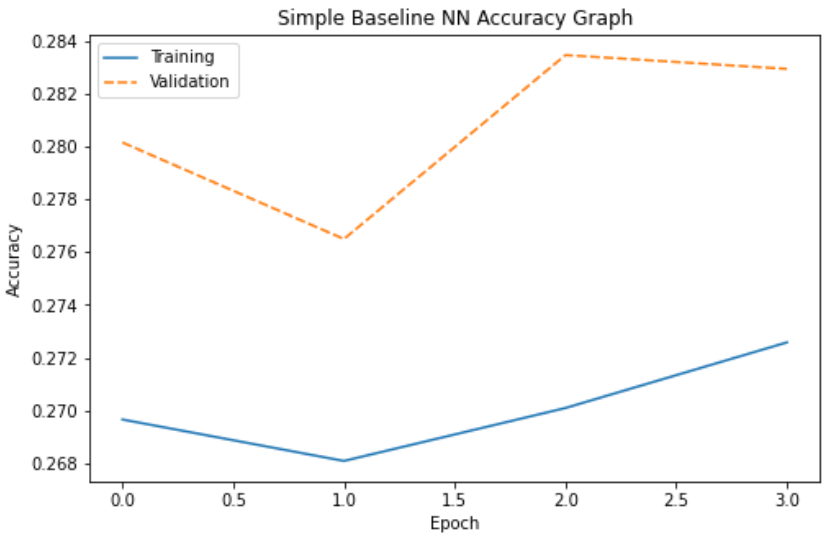
  Training Accuracy: 33.17655324935913

  Training Loss: 1.6737563610076904

  Validation Accuracy: 31.87749981880188

  Validation Loss: 1.6876177787780762

  Train/Validation Diff: 1.29905343055725

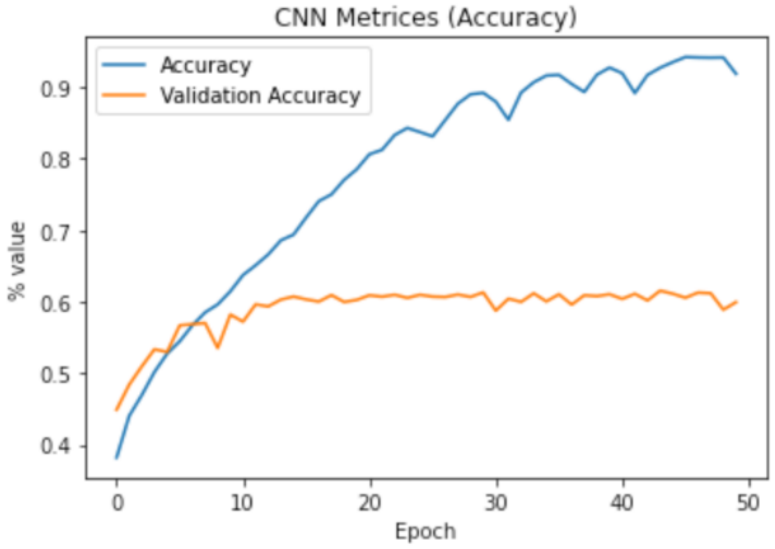


Model:

1-CNN Model:

The best score : train = 0.9422 - val = 0.6057

Validation Accuracy



Validation Loss