Abstract

One of challenge in computer vision is age classification. There has been many methods used to classify someone age from image of their faces. One of methods is convolutional neural network. Convolutional neural network used because it has high accuracy but convolutional neural network can't be used on many layers therefore residual technique were applied on convolutional neural network then named residual neural network. Using residual neural network, a neural network can use many layers. This research used model Resnet34. This research used adience dataset that have 19.370 face images from 2.284 individuals and the data has eight class which are 0-2, 4-6, 8-13, 15-20, 25-32, 38-43, 48-53, dan 60-100 age group. The technique that used are cyclical learning rate, data augmentation, and transfer learning. Six training scenario were used to know the best model. Best Resnet34 model got average F1 score 0.792 and achieved by data augmentation and transfer learning and trained on image with size 224x224.

Keywords: age classification, residual neural network, convolutional neural network, face image, multi-class, *cyclical learning rate*