Gender Recognition System Using Convolutional Neural Network

K. Bhavana¹, K. Sravya Reddy², B. Pranathi³, CH. Maheshwari⁴, T. Ratnamala⁵

B. Tech (IV-CSE), Department of Computer Science and Engineering¹,²,³,⁴
Associate Professor, Department of Computer Science and Engineering⁵
Ace Engineering College, Hyderabad, Telangana, India
bhavanakongara01@gmail.com¹, kondasravyareddy2000@gmail.com², pranathisree124@gmail.com³, chenagalamaheshwari19@gmail.com⁴, ratnamala5b5@gmail.com⁵

Abstract: Human gender detection which is a part of facial recognition has received extensive attention because of its different kinds of application. Previous research works on gender detection have been accomplished based on different static body feature for example, face, eyebrow, hand-shape, body-shape, finger nail etc. In this research work, we have presented human gender classification using Convolution Neural Network (CNN) from human face images as CNN has been recognised as best algorithm in the field of image classification. To implement our system, at first a pre-processing technique has been applied on each image using image processing. The pre-processed image is passed through the Convolution, RELU and Pooling layer for feature extraction. A fully connected layer and a classifier is applied in the classification part of the image. To obtain a better result, we have implemented our system using different optimizers. We use libraries like Keras, Opencv and also uses Tensorflow as backend.

Keywords: Convolution Neural Network, Convolution, RELU, Pooling layer, Optimizers, Tensor Flow, Opencv.

REFERENCES