

ABSTRACT

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AGE AND GENDER PREDICTION APPLICATION USING
CONVOLUTIONAL NEURAL NETWORK WITH WEBSITE-BASED
RESNET-18 ARCHITECTURE

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(xii + 60 + attachment)

Face detection to predict age and gender is in high demand today. This face detection can be used in collecting personal data and the data can be used in doing other things, one of which is nutritional recommendations. In this research, the CNN (Convolutional Neural Network) method will be used as a method to accurately predict age and gender. This research will implement the CNN model generated on the website and identify the dataset on the device. The facial image used comes from <https://github.com/JingchunCheng/All-Age-Faces-Dataset>, which contains facial images of Asian people. The face image used as input is a color image stored in .jpg format. The training process uses the pytorch library in the python programming language which is done offline. The model used is the model taken from all epochs with the best validation accuracy of 82% for age and 94% for gender. The implementation of testing on the website was carried out using a model that had been processed and trained on several sample photos shown directly to the webcam and successfully displayed predictions properly. The results of this research are expected to be used further, for example, intelligent robots to interact with humans according to their age or other research.

Bibliography (1998-2022)