PROJECT REPORT

COMPARISON OF SOME COMPUTER VISION ARCHITECTURE PERFORMANCE TO IMPROVE THE HEALTH VIOLATIONS DETECTION

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2022

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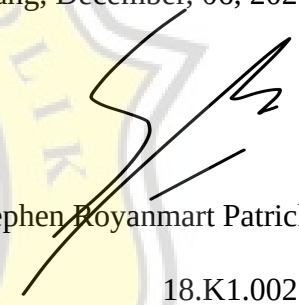
ACKNOWLEDGMENT

First of all, I want to say thank you to God that always gives me strength, so I can finish this Thesis. God is so good!

I have received a myriad of support, advice, and assistance throughout this document writing. I would like to thank my supervisor Mr. Robertus Setiawan Aji Nugroho for helping me in finishing my thesis.

I would like to thank my family and my support system (“my special person”, the family of GLORY especially “penanalrun family”, and “eggcellent family”) for giving me ceaseless love, support, and advice throughout my study at Soegijapranata Catholic University. You gave me a great escape to rest my mind from my thesis.

Semarang, December, 06, 2021



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ABSTRACT

The COVID-19 pandemic is a big problem for the world. Many things have been done to solve the problem of Covid-19, one of which is the prevention of transmission. Prevention of the transmission of COVID-19 has been carried out by many methods, one of which is the creation of a detection system based on computer vision technology.

To improve the performance of the system, researchers conducted special research that compared the performance between 3 architectures, Faster-RNN ResNet50 V1, SSD ResNet50 V1 FPN & SSD MobileNet V2 architectures. SSD ResNet50 V1 FPN was found as the best model in this test. That is because in two experiments the researcher got that model has consistency in performance. In the first experiment, mean average precision, mean average precision of medium images, mean average precision of small images, average recall, average recall for large images, average recall of medium images, and an average recall of small images SSD ResNet50 V1 FPN has the better results than others. In the second experiment, mean average precision, mean average precision of large images, mean average precision of medium images, mean average precision of small images, average recall, average recall of medium images, and an average recall of small images.

Keywords: Computer Vision, Health Violations Detection, Pandemic, Artificial Intelligence

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