Maskit: COVID-19 Resiliency through Computer Vision and Robotics

Allen Mao
University of California, Berkeley
Berkeley, California
allenmao@berkeley.edu

Hans Gundlach
University of California, Berkeley
Berkeley, California
hansgundlach@berkeley.edu

I. Introduction

The COVID-19 pandemic has led to, at the time of this writing, almost half a million deaths, the worst global recession since the Great Depression, and school closures that have affected nearly all of the world's student population. Although reopening efforts have been underway in many parts of the world, their results have been mixed and it is therefore often instead in citizens' own hands to protect themselves from this virus, i.e. social distancing, frequent handwashing, and mask wearing. Although the United States Centers for Disease Control and Prevention (CDC) has issued recommendations for citizens to wear masks to reduce exposure to the virus, the choice to wear a mask has unfortunately evolved to become a political question too. Apart from CDC and World Health Organization (WHO) guidelines to wear facial coverings, i.e. masks, in this article we will not discuss the merits of face coverings; this knowledge is assumed. Instead, we propose, describe, and demonstrate *Maskit*, a computer vision and robotics system that keeps business owners and other ordinary citizens safe by blocking people who fail to wear a mask while letting people who do through entrances.

A. Code Source

II. Purpose & Motivation

A. Previous Work

B. What is Maskit.

III. Step by Step Usage Instructions

A. Setting up the server

B. Running it on R Pi

IV. Difficulties and Challenges

V. Market Evaluation

VI. Suggested Improvements

VII. Conclusion

References

[1] Vincent CC Cheng, Shuk-Ching Wong, Vivien WM Chuang, Simon YC So, Jonathan HK Chen, Siddharth Sridhar, Kelvin KW To, Jasper FW Chan, Ivan FN Hung, Pak-Leung Ho, et al. The role of community-wide wearing of face mask for control of coronavirus disease 2019 (covid-19) epidemic due to sars-cov-2. *Journal of Infection*, 2020.