Overcrowding Management Tool

Abstract

Our project aims to mitigate overcrowding in markets and exhibitions, and reduce its effects (e.g. casualties).

Information

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Objective / Background / Motivation

After the Itaewon crowd crush incident in October 2022, the severeness of crowd crushes / stampedes was brought to public attention. This project aims to
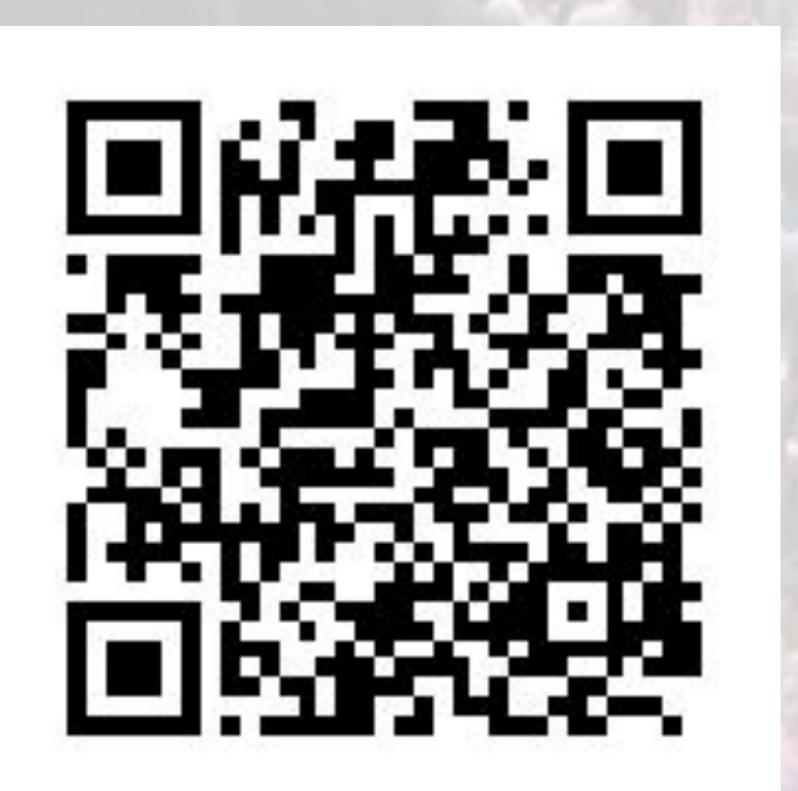
- Prevent overcrowding
- Mitigate the effects of overcrowding (eg: reducing casualties)

Methodology

1. Perform face recognition on camera images
2. Count the number of people in an area
3. Alert the authorities if the density exceeds a threshold

Discussion

- Accuracy can be improved when using other methods to count humans, such as head recognition. However, this is not feasible at present due to limited datasets.

GitHub   Demo Video

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