



Project Proposal Crowd Counter

PROPOSED BY

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PROPOSED TO

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PROJECT PROPOSAL

OUR GOAL

TO CREATE A MODEL THAT CAN COUNT THE PEOPLE IN THE CROWDED PLACES IN A ACHIEVE TO REDUCE TRAFFIC, KEEP DISTANCE DURING THE PANDEMIC, AND HELP THE MINISTRY OF HAJJ & OMRA TO FACILITATE ITS SERVICES FOR SERVING THE PILGRIMS OF ALLAH HOUSE BY USING DEEP LEARNING.

DATA

THE SHANGHAITECH DATASET IS A LARGE-SCALE CROWD COUNTING DATASET. IT CONSISTS OF 1198 ANNOTATED CROWD IMAGES. THE DATASET IS DIVIDED INTO TWO PARTS, PART-A CONTAINING 482 IMAGES AND PART-B CONTAINING 716 IMAGES. PART-A IS SPLIT INTO TRAIN AND TEST SUBSETS CONSISTING OF 300 AND 182 IMAGES, RESPECTIVELY. PART-B IS SPLIT INTO TRAIN AND TEST SUBSETS CONSISTING OF 400 AND 316 IMAGES. EACH PERSON IN A CROWD IMAGE IS ANNOTATED WITH ONE POINT CLOSE TO THE CENTER OF THE HEAD. IN TOTAL, THE DATASET CONSISTS OF 330,165 ANNOTATED PEOPLE. IMAGES FROM PART-A WERE COLLECTED FROM THE INTERNET, WHILE IMAGES FROM PART-B WERE COLLECTED ON THE BUSY STREETS OF SHANGHAI.

TOOLS

- PYTHON
- PYTORCH
- KERAS
- TENSORFLOW
- SCIPY
- NUMPY

PROJECT PROCESS

01

READ THE
DATA

03

BULID THE
MODEL

02

CREATE
DENSITY
MAPS FOR
IMAGES

04

PREDICT
THE COUNT