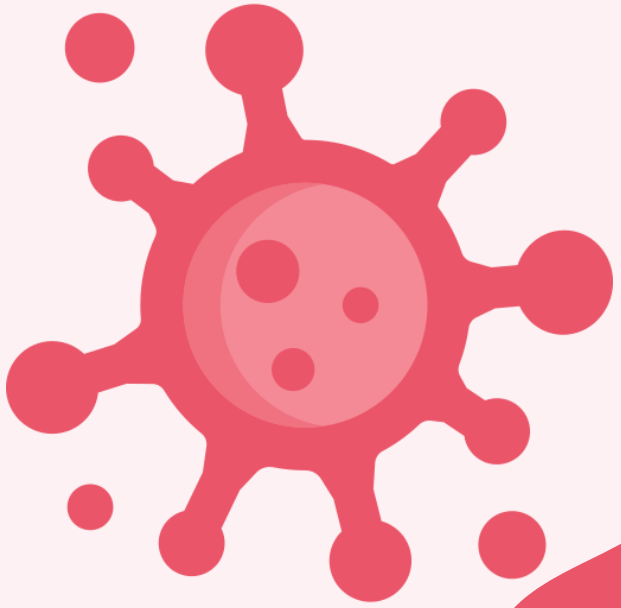
Between Us

We take the “Us” out of VirUs

Problem



46,493,580*

Cases detected

1,201,902

Deaths

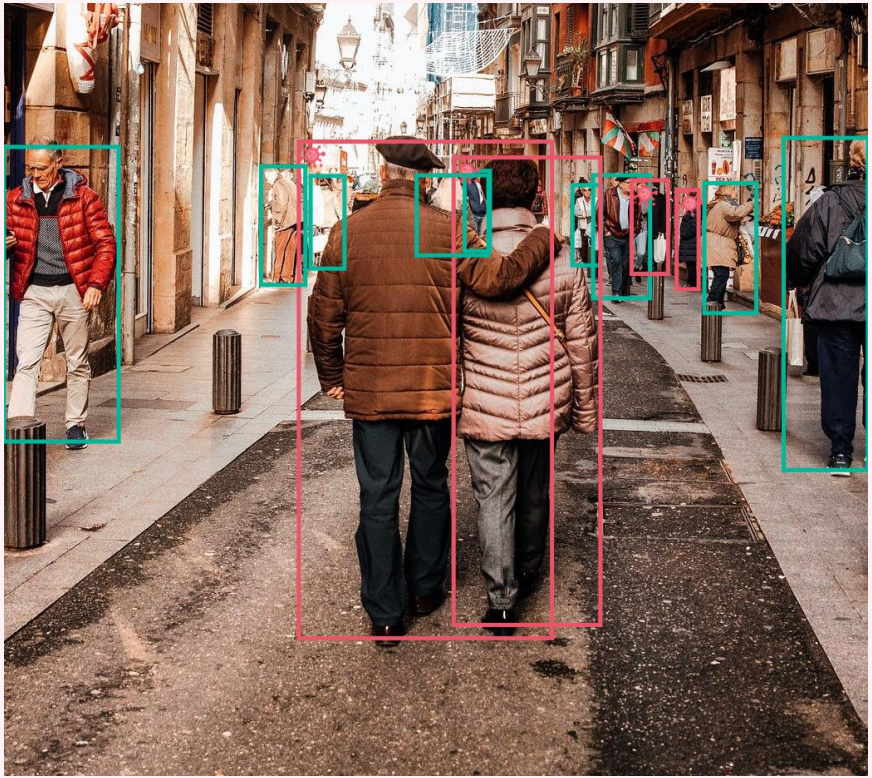
Spread rate **&**

Low usage of contact tracing apps

*Worldometers, data as of the 1st of November 2020

Solution

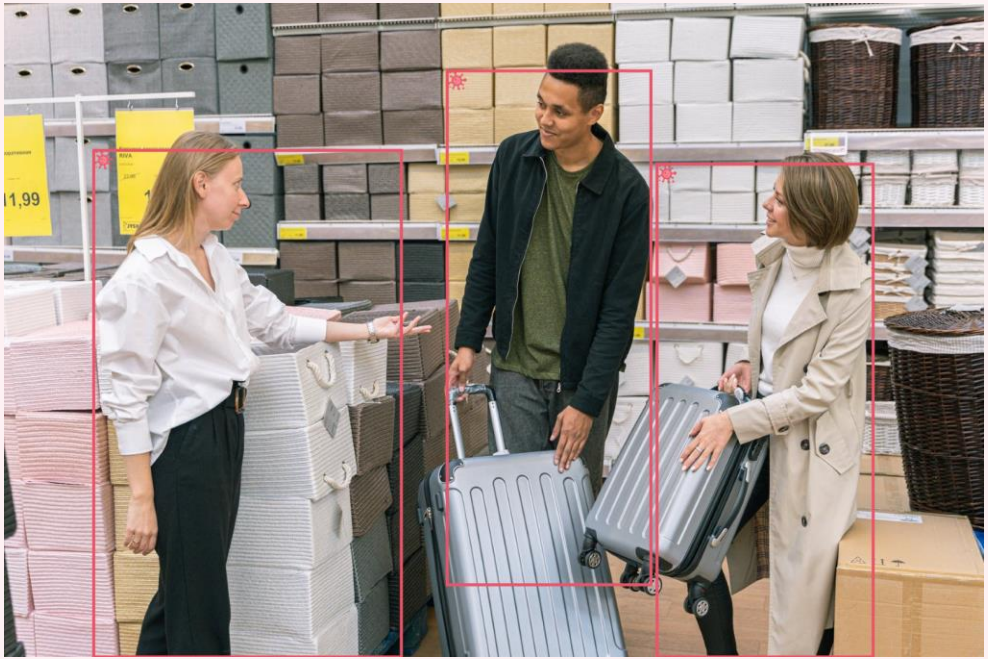
Estimating social distance



based on images & video

Use cases

Stop the spreading: Know how crowded a place is & the human dispersion



@supermarket

Use cases

Stop the spreading: Know how crowded a place is & the human dispersion

@tourist attractions

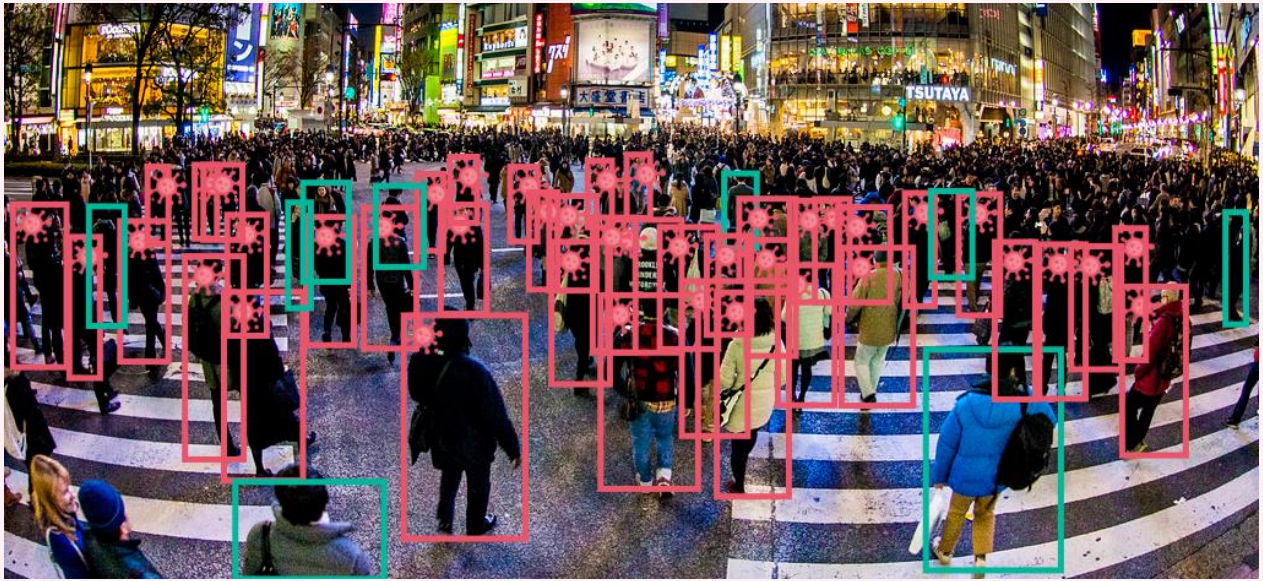
Use cases

Stop the spreading: Know how crowded a place is & the human dispersion

@the subway

Use cases

Stop the spreading: Know how crowded a place is & the human dispersion



On the streets

Use cases

Statistics - know if the distancing was respected

@public events

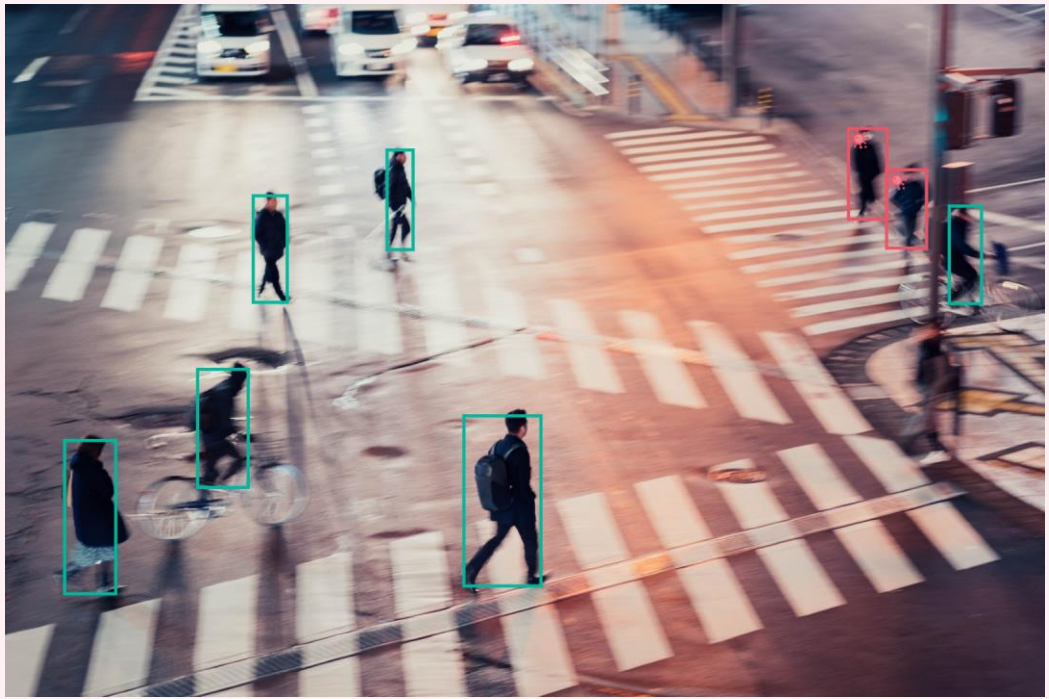
Use cases

Statistics - know if the distancing was respected

@Halloween

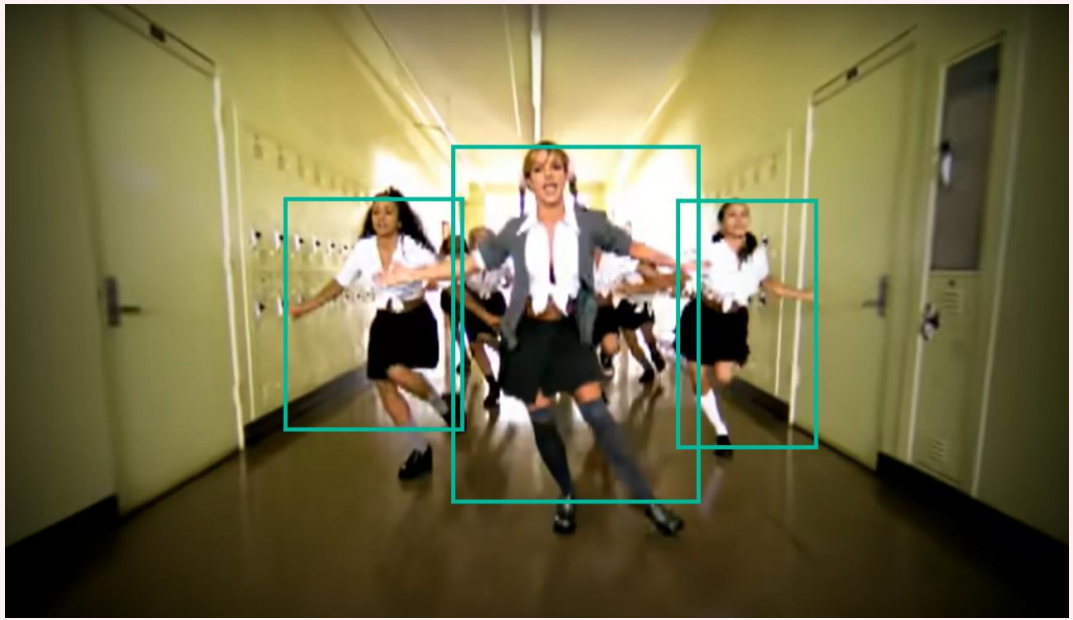
Use cases

Sociology - study cultural differences based on distances between people



Use cases

Entertainment - check the social distancing in:



Britney's videos

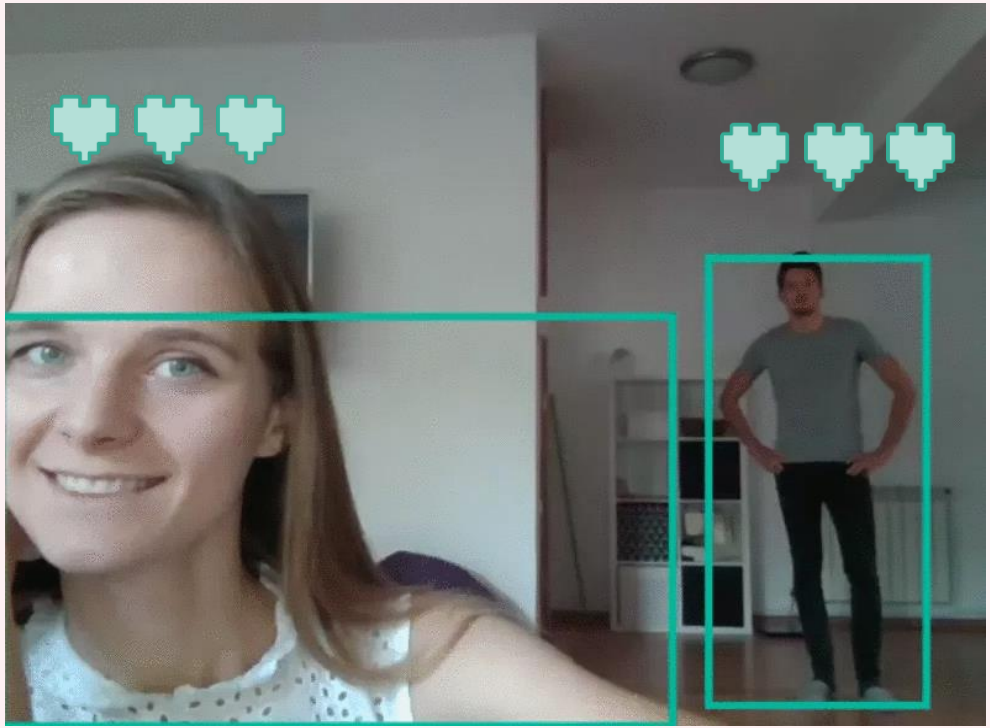
Use cases

Entertainment - check the social distancing in:

Famous pictures

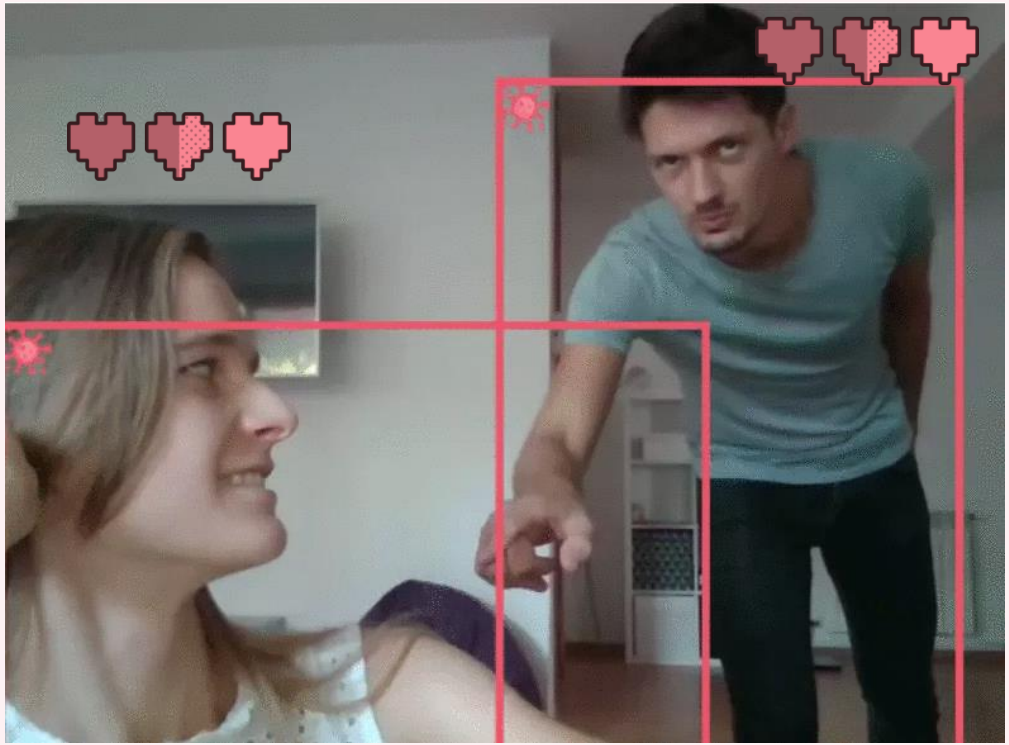
Use cases

Entertainment – TikTok games



Use cases

Entertainment – TikTok games



Timeline

01

Ideation

Researched existing solutions

02

Developed the API and web app

2NHack

03

Open-source

Published the project on GitHub

04

Maintain and implement requested functionalities

Deployment

Solution

PyTorch
Monoloco
OpenPifPaf

python
FastAPI

React Webcam
BULMA

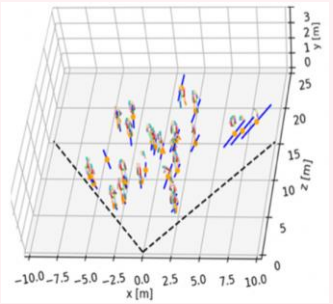
A social distance estimation **API** with an accompanying **Web App** to showcase its capabilities

https://cutt.ly/betweenus

Approach: API

Detect poses using OpenPifPaf

Transpose to 3D locations using Monoloco



Calculate distances and future positions using heuristics

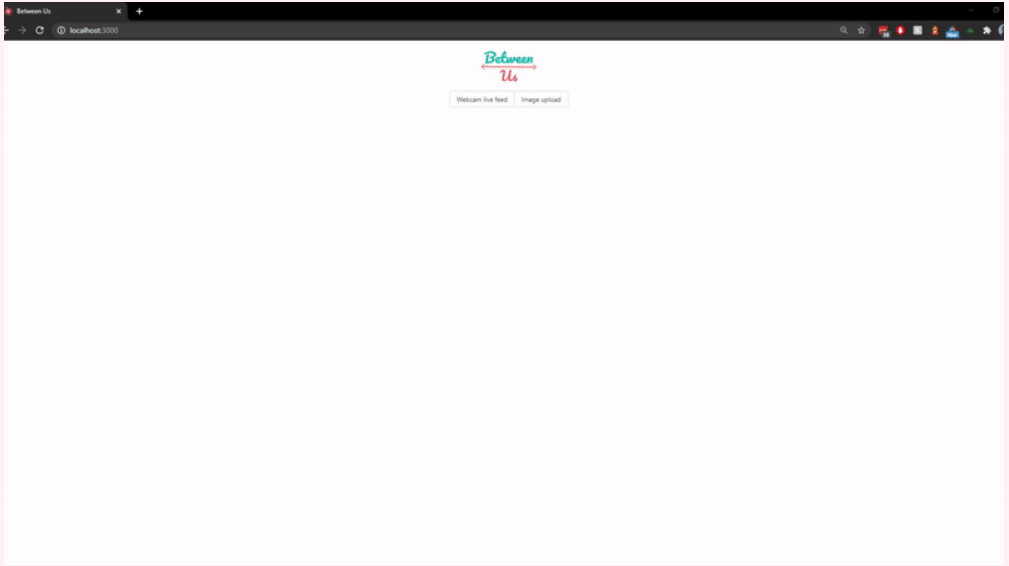
https://cutt.ly/betweenus

Approach: Web app

Upload single image

Live webcam feed

Render on HTML canvas



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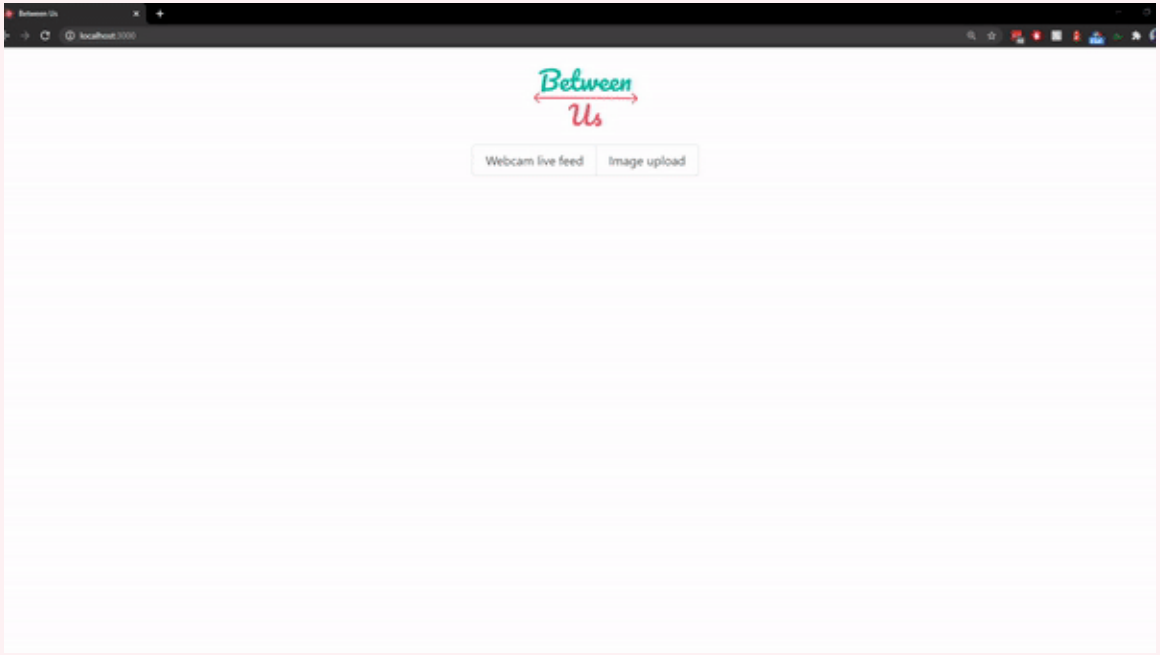
Demo



https://cutt.ly/betweenus

THANK YOU

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