Microsoft Task

Aldiyar Bolatov, team "Monster"

Microsoft industry (Education)

- Education online
- It will Continue...
- Why?
- Equalizer



coursera

Idea

- Problems: Lack of communication, feedback, attentiveness
- One of the solution: Eye tracking!
- Why?
- Problem: Expensive tools
- Solution: Almost everybody have access to RGB cameras.





Realization

First part:

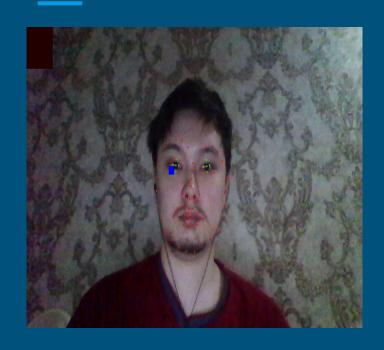
- Face Landmarks DLib-Dataset
- Backbone Mobilenet-v3 large
- Training using AdaBelief, also can benefit from SWA

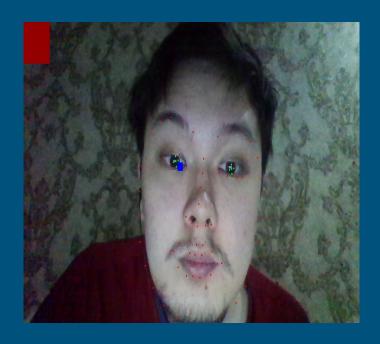
Second part:

- Eye region key point: Pupil Tracking Iris Landmarks from Google.
- Why?



Gaze Estimation and Distance





Business



- Create new dataset, more lightweight structure, quantization, inference tricks, context R-CNN, gaze estimation using few-shot examples.
- Ship on Google Azure (do not have that one) + collaboration with education platforms.
- Also, can be used for more than education: scrolling phone, helping people with disabilities etc.