MediaPipe

Links

Blogs

- [MediaPipe Face Mesh Blog](#)

- [MediaPipe Face Detection](#)

- [Real-time Facial Surface Geometry from Monocular Video on Mobile GPUs](#)

Papers

- [Real-time Facial Surface Geometry from Monocular Video on Mobile GPUs](#)

- [BlazeFace: Sub-millisecond Neural Face Detection on Mobile GPUs](#)

Youtube

- [Youtube Link](#)

Notes

- `landmarks` variable is not subscriptanle. Use `landmarks.landmark` instead
  - landmarks[0] → wrong
  - landmarks.landmark[0] → correct

- Using **Mediapipe** face and landmark detection model

- Detects 468 landmarks

- Can also get landmarks of separate regions
    - mp_face_mesh.FACEMESH_LEFT_EYE
    - eye, lips, face
- Can generate face mesh as well
- Issue in some images
    - No detection
    - test_img2, 6, 8

- Resolution change is affecting the results?
    - It got fixed when I cropped the chest region?
        - why???

- I think all this is happening because of the quality of the images and the noise

- Issue files number varied by changing `sigma_s` parameter in `cv2.detailEnhance` function
    - Had two failed cases
        - Fixed all by setting `sigma_s = 25`

- for some reason `224x224` and `sigma_s=25` is good
- Original paper uses `128x128` or `256x256`
    - https://arxiv.org/pdf/1907.06724.pdf

- Using original sizes give `six` failed cases

- Made a final notebook with `224x224` and automated results