

A decorative graphic on the left side of the slide consisting of two overlapping parallelograms. The front one is blue and the back one is a light green color. They are positioned diagonally, with the blue one partially covering the green one.

Face LandMark Detection

CS/IT441 - Computer Vision Project

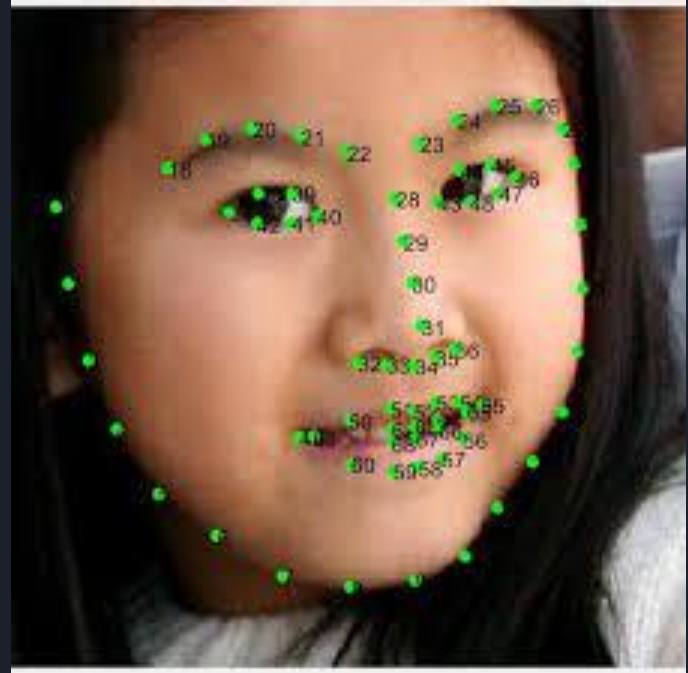


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Problem Statement

Face landmark detection is a computer vision task where we want to detect and track key points from a human face.





Real Life Applications

- Driver Monitoring
- Animation and Reenactments
- Facial Recognition



Data Processing

- Rotate
- Colour Jitter
- Resize
- Crop Face



Results

```
Valid Steps: 84/84  Loss: 0.0032
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...
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```
Epoch: 10  Train Loss: 0.0014  Valid Loss: 0.0020
```

```
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```

```
Training Complete
```

```
Total Elapsed Time : 6552.875833272934 s
```



References

- DATASET - http://dlib.net/files/data/ibug_300W_large_face_landmark_dataset.tar.gz
- N. Wang, X. Gao, D. Tao, H. Yang, and X. Li, “Facial feature point detection: A comprehensive survey,” Neurocomputing, vol. 275, pp. 50–65, 2018, ISSN: 0925-2312.
- Y. Wu and Q. Ji, “Facial landmark detection: A literature survey,” Int. J. Comput. Vision, vol. 127, no. 2, pp. 115–142, Feb. 2019, ISSN: 0920-5691. DOI: 10.1007/s11263-018-1097-z.
- <https://towardsdatascience.com/face-landmark-detection-using-python-1964cb620837>
- <https://paperswithcode.com/task/facial-landmark-detection>
- <https://arxiv.org/pdf/1512.03385.pdf>