**Code in its current state:**

1.Images are stored in zipped files, so we need to unzip them.

**Text

Description automatically generated**

2.Convert each image to an equivalent pixel array

Graphical user interface, text

Description automatically generated

3.Split the data into train and test split.

**Graphical user interface, text, application

Description automatically generated**

**Current Model architecture**

This layer, rather than creating the entire image, produces sections of pixels, allowing for speedier models. This may be more or less dense than the original photos, depending on the number of filters you use, but it will allow the model to learn more complex associations with fewer resources. We used 32 filters in total. Two 3x3s pooled together followed by three 3x3s pooled together was the best setup for me.

**Graphical user interface, text, application

Description automatically generated**

**Did you do the same that was done in the references?**

1.No, the data loading part and pre-processing part is different.

2. Used a different neural network architecture compared to complex one present in the references

**Any enhancement to the work described in the references?**

1.Used a different neural network architecture compared to complex one present in the references

2.Started with a set of 3 convolutional layer, followed with a pooling layer and repeated it with another set of layers to increase the prediction accuracy.

**How are you planning to evaluate your results?**

1.As of now, we will be showing the result with the accuracy which is almost equal to 80%.

2.At the final presentation, we are planning to show a live demo of how the model will react when it sees a sleeping driver. We are trying to implement a computer vision program which calls the web cam. Once the model detects our face, it will show the output as whether if the eyes are closed and the driver is sleepy.

**Research papers references**

* Qaisar Abbas, “HybridFatigue: A Real-time Driver Drowsiness Detection using Hybrid Features and Transfer Learning” International Journal of Advanced Computer Science and Applications(IJACSA), 11(1), 2020. <http://dx.doi.org/10.14569/IJACSA.2020.0110173>.
* Sahayadhas, A.; Sundaraj, K.; Murugappan, M. Detecting Driver Drowsiness Based on Sensors: A Review. *Sensors* 2012, *12*, 16937-16953.
* W. Deng and R. Wu, "Real-Time Driver-Drowsiness Detection System Using Facial Features," in *IEEE Access*, vol. 7, pp. 118727-118738, 2019, doi: 10.1109/ACCESS.2019.2936663.