**Conclusion and future work**

In this project, we have successfully developed a machine learning model to detect distracted drivers using images from a dashboard camera. Our model achieved high accuracy and precision, which demonstrates its effectiveness in detecting various types of distracted driving behavior. We have explored different CNN architectures and hyperparameters and found that a model with 4 convolutional layers and 2 fully connected layers with dropout and ReLU activation functions performed the best. Our project has important implications for improving road safety by detecting and preventing distracted driving behavior. The model can be integrated into existing driver assistance systems, such as automatic emergency braking and lane departure warning systems, to enhance their functionality and reduce the risk of accidents caused by distracted driving. Additionally, we can explore incorporating other sensors, such as accelerometer and gyroscope data, to further enhance the model's performance in detecting distracted driving behavior. Furthermore, we can explore real-time detection of distracted driving behavior to provide immediate feedback to the driver, which could potentially reduce the occurrence of distracted driving behavior.