

# DriveSafe Poster



Department of  
**Electronic and  
Electrical Engineering**

Aleksander Kosiak – Software & Electronic Eng.

## Summary

Driver emotion feedback using face detection application. Gives recommendation based on emotion on style of driving. Uses a region of interest to draw a box around the face and displays the emotion above the face. Sends the emotion and image capture to a Next JS based website.

## Libraries Explained

OpenCV – Real time face detection  
Numpy – Image array manipulation  
Keras – Image information extraction, deep learning models



EMOTION DETECTION

## Hardware & Software

Logitech C920 HD Camera

Logi Capture

Python using VSCode

Libraries:

OpenCV

Numpy

Keras/Tensorflow

Frontend: NextJS

Backend: Django

## Inspiration

Having previously done work experience in Xperi, based in Galway, taught me much about face detection. This inspired me to look for a missed opportunity in the market that could change the automotive market in the health and safety department that's always evolving.

## Results

