

**GUIDE DETAILS:**

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**TEAM DETAILS:**

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**SPECIALIZATION:** Machine Learning using Python, OpenCV.

**PROPOSED WORK:**

We will be developing a system which accepts a driver’s license and a video feed containing the driver’s face for verification. The verification system will be developed by the use of ML algorithms and the OpenCV library.

**EXISTING PROJECT:**

<https://idmatch.co/>

<https://github.com/maddevsio/go-idmatch>

<https://github.com/CatalystCode/faceanalysis>

**TECHNOLOGY USED:**

Machine Learning using Python

OpenCV and other libraries

HTML, CSS, JavaScript

Web Server (e.g. Apache)

**LITERATURE SURVEY:** We referred various online content and documentation on ML from various websites such as opencv.org, YouTube, etc. We saw a potential to use the power of ML and OpenCV libraries to develop a meaningful project to authenticate the drivers. We also visited some educational websites such as geeksforgeeks.com, medium.com, etc. to get general ideas to implement our problem domain by using websites as front-end. We referred a YouTube channel called CodingEntrepreneurs for learning to implement OpenCV libraries in a project using Python. We consistently visited various educational sites for solving small sub-problems in the problem domain.

**ABSTRACT:** This research project uses the help of new modern breakthroughs in AI and ML to implement better solution to authenticate a user before riding a vehicle. The system would ask for user's driver's license to get details about the person, then it would also take video feed from the camera installed in front of driver's seat to verify the person, and finally decide whether to give access to the vehicle's controls or not. The driver and his original driver's license are a must for this authentication system.

**PROJECT TITLE: Vehicle User Authentication using OpenCV**