
Advanced ANPR & FRS Solution

404! Group Name Does Not Exist
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ANPR Demo

Vernacular Number Plate Detection

```
2023-04-13 13:47:53.659471: W tensorflow/stream_executor/cuda/cuda_driver.cc:263] failed  
2023-04-13 13:47:53.669555: I tensorflow/stream_executor/cuda/cuda_diagnostics.cc:169] re  
146.1037331979487 60.68582081406349  
244.04136516271976 136.27686961533604  
['महाराष्ट्र १२ जी सी', '२८६८']  
['महाराष्ट्र १२ जी सी', '२८६८']
```



ANPR Demo

```
Use ref() instead.  
2023-08-08 16:22:29.074224:  
2023-08-08 16:22:30.619077:  
360 50  
[ 'उत्तर प्रदेश ५० बी टी ८८३०' ]  
[ 'उत्तर प्रदेश ५० बी टी ८८३०' ]
```

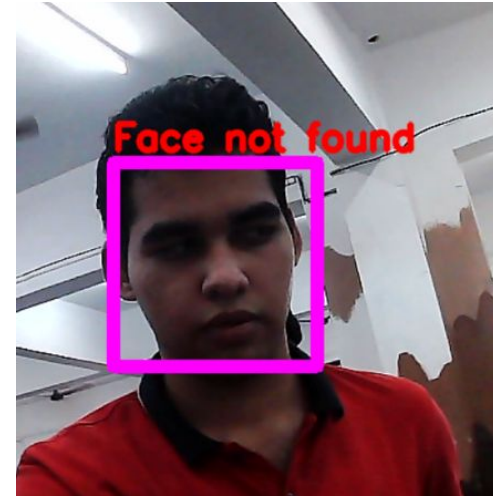
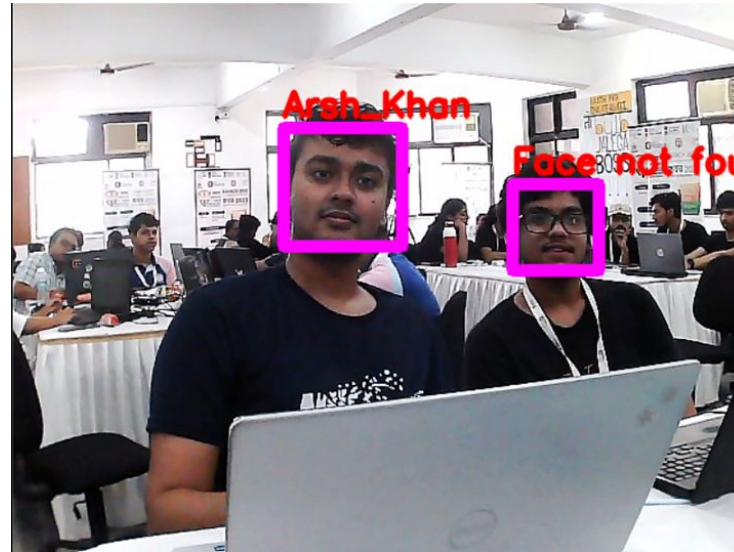
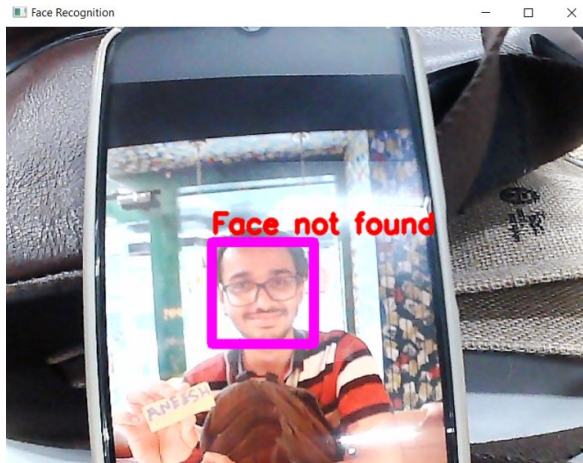


Speed Detection

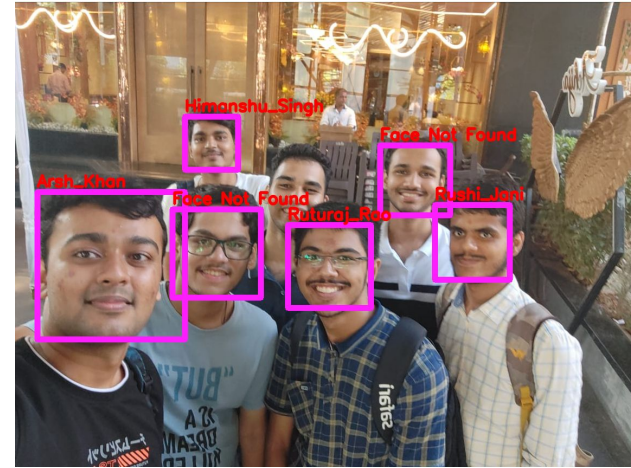
<https://drive.google.com/file/d/1FYXSi2A9t01anYBnLNzKstIW2mA9EqhF/view?usp=drivesdk>

<https://drive.google.com/file/d/1VuayOy9m1SyrrOzEvjSP29OwJV2Lo9F6/view?usp=sharing>

FRS Demo



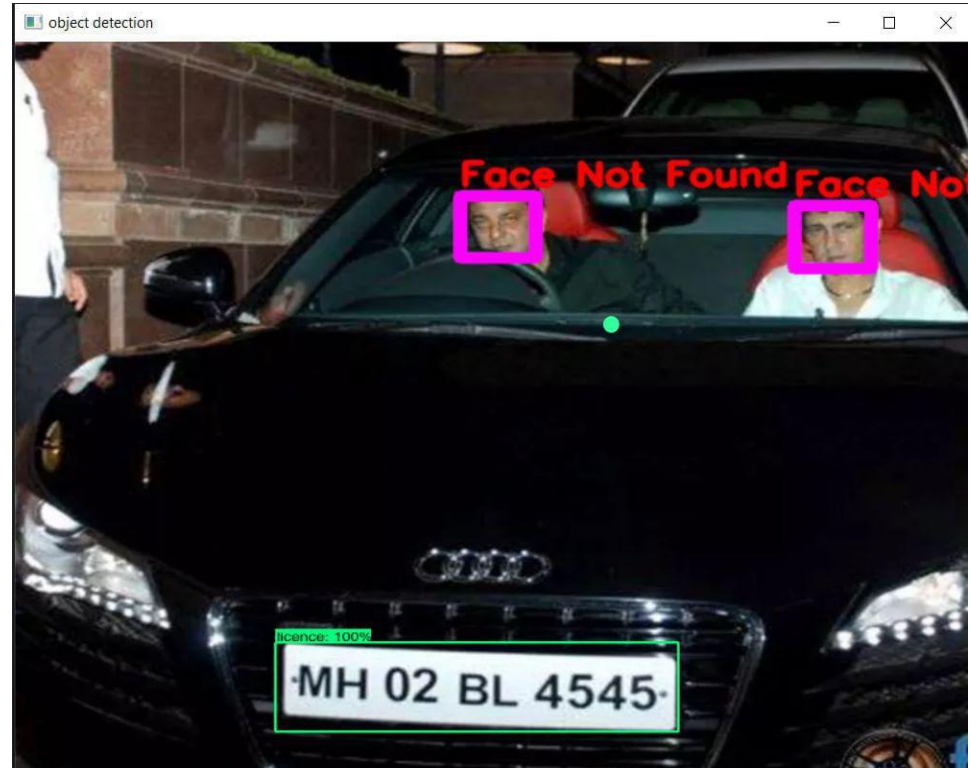
FRS Demo



Integrated Model output
demonstrating successful
detection

```
Use ref() instead.  
2023-08-09 16:16:41.637  
605 113  
['MH 02 BL 4545 |']  
['MH 02 BL 4545 |']
```

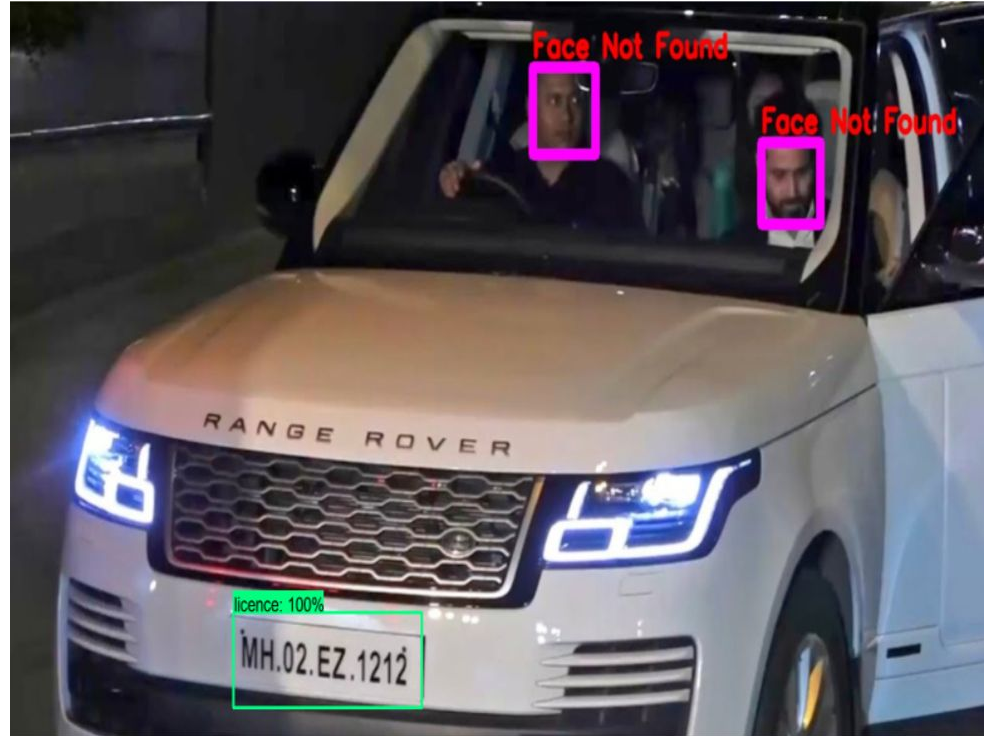
ANPR-FRS Demo 1



ANPR-FRS Demo 2

Integrated Model
output demonstrating
successful detection

```
Use ref() instead.  
2023-08-09 16:18:20.9012  
294 81  
['MH.02.EZ.1212']  
['MH.02.EZ.1212']
```



Techstack used in ANPR & FRS

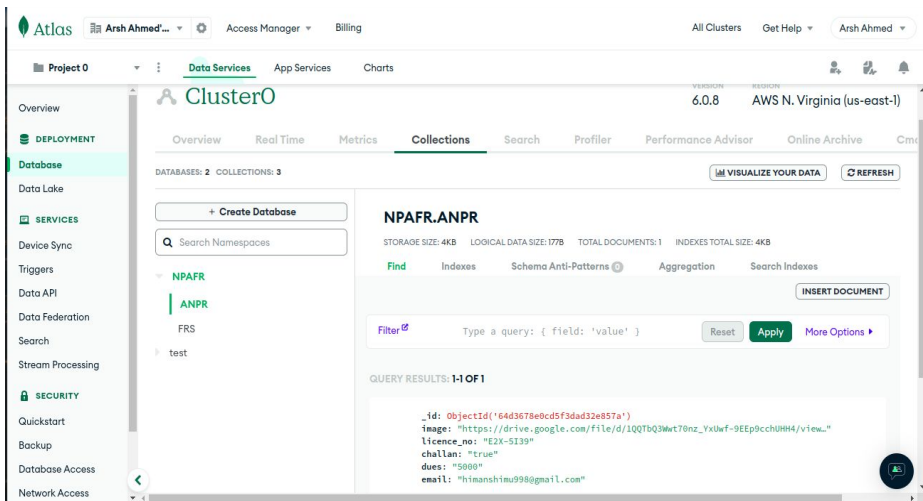
1. Easy OCR for Number Plate Detection
 2. Faster RCNN for Number Plate Recognition
 3. MTCNN for Face Detection (Training)
 4. FaceNet for Face Recognition
 5. Haar Cascade for Face Detection (Testing)
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Citisers Application

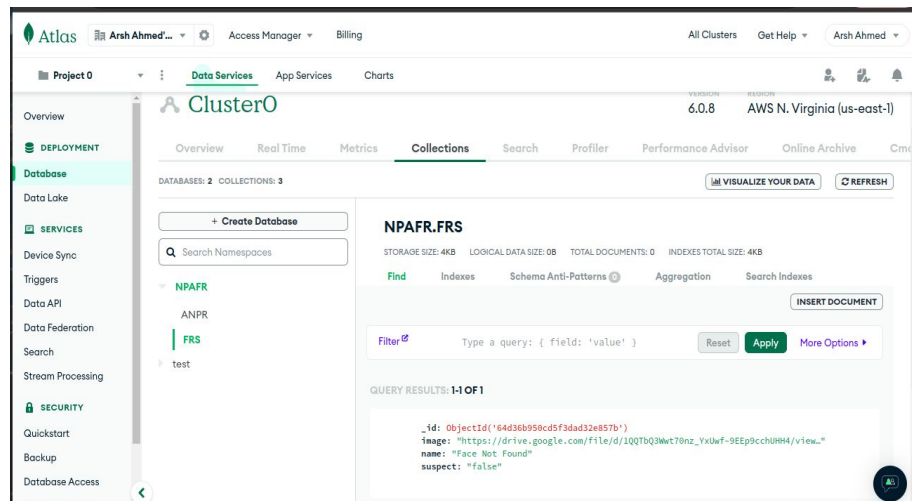
1. A client side application for citizens that aims to provide the user with an easy way to communicate with the traffic authorities.
 2. It guarantees the users' data security as well as rapid performance of the application by implementing both MongoDB and Ethereum smart contracts for storage.
 3. Important updates are shown through a marquee at the top of the application.
-

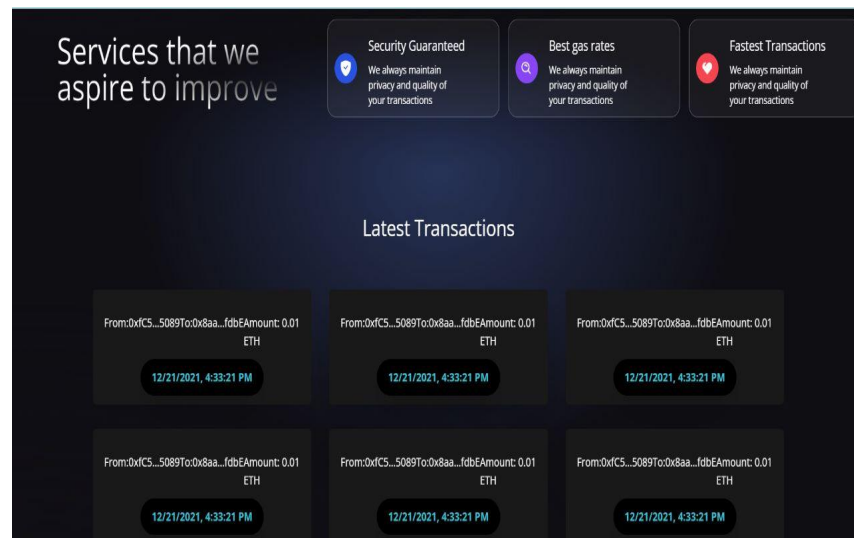
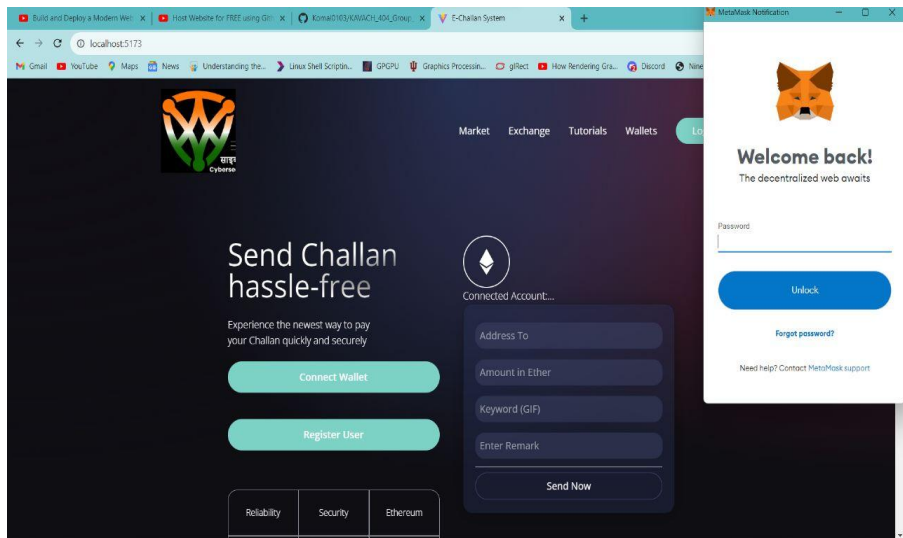
MongoDB Backend for faster action

MongoDB for ANPR



MongoDB for FRS





Real-life Use Cases

- Getting the **details** of the **suspect** driving a **non-license plated** car due to the parallel functioning of **ANPR & FRS System**.
 - To **identify individuals** associated with **stolen vehicles, criminal activities, or outstanding warrants**. It can **match** the **driver's face** with a database of **known suspects**.
 - **Manage access** to gated communities or **office complexes**. It can **verify** the **identity of drivers** and check if they have **permission** to enter. The **data** stored will also act as an **evidence** making it easier to **track** who has been on the premises.
 - When someone is **reported missing**, law enforcement can use this system to **scan traffic cameras** to **locate vehicles associated** with the **missing person**.
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Thank You!
