

Vehicle Accident Detection

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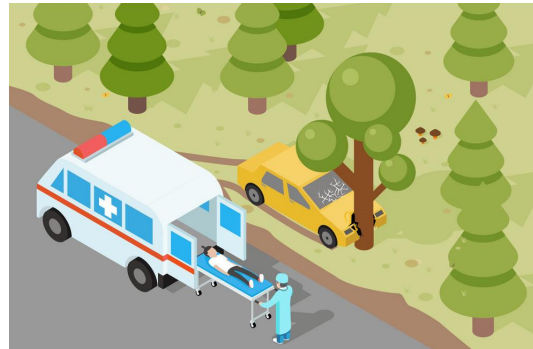
Project Objectives

- Problem Statement
- Project Overview – Introduction
- End Users
- Wow Factor in Project
- Modelling/Block Diagram/Flow of Project
- Result/outcomes
- Conclusion
- Future Perspective



Problem Statement

Accidents on roads can have severe consequences, including loss of life and property damage. Developing an efficient and accurate system to detect accidents in real time can significantly improve emergency response and overall road safety.



Project overview - Introduction

In an increasingly connected world, road safety remains a critical concern. Accidents can have devastating consequences, affecting lives, property, and traffic flow. Our project aims to address this challenge by leveraging **machine learning** and **real-time monitoring** to detect accidents promptly.

Project Goals:

- Accident Detection
- Fast Response
- User-Friendly Interface



Project Feature

1. **Accident Detection:** ML algorithms identify car, bike, and fire accidents.
2. **Real-time Image Analysis:** Swift analysis of accident crash images.
3. **Web Server Integration:** Sends images to React-based web server.
4. **Admin Dashboard:** Enables quick decision-making for emergency response.
5. **Historical Data Lookup:** Dashboard for reviewing past accident data and locations.
6. **Text Message Alerts:** Admins receive immediate alerts for rapid response.
7. **Emergency Coordination:** Facilitates contacting emergency services promptly.
8. **False Alarm Management:** Admins can mark images as false alarms.
9. **Enhanced Response:** Accelerates response time to accidents.
10. **Comprehensive Incident Management:** Integrates features for end-to-end incident management.

End User

Emergency Services and First Responders:

Police, fire departments, and medical personnel can use the system to quickly respond to accidents. Real-time alerts allow them to reach accident sites promptly.

Insurance Companies:

Insurance providers can leverage the system to assess claims more accurately. Real-time accident data helps them expedite claim processing.



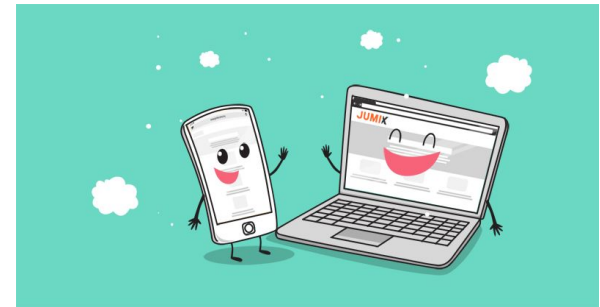
Wow Factor in Solution

Accident Detection: Using video streams and surveillance camera.

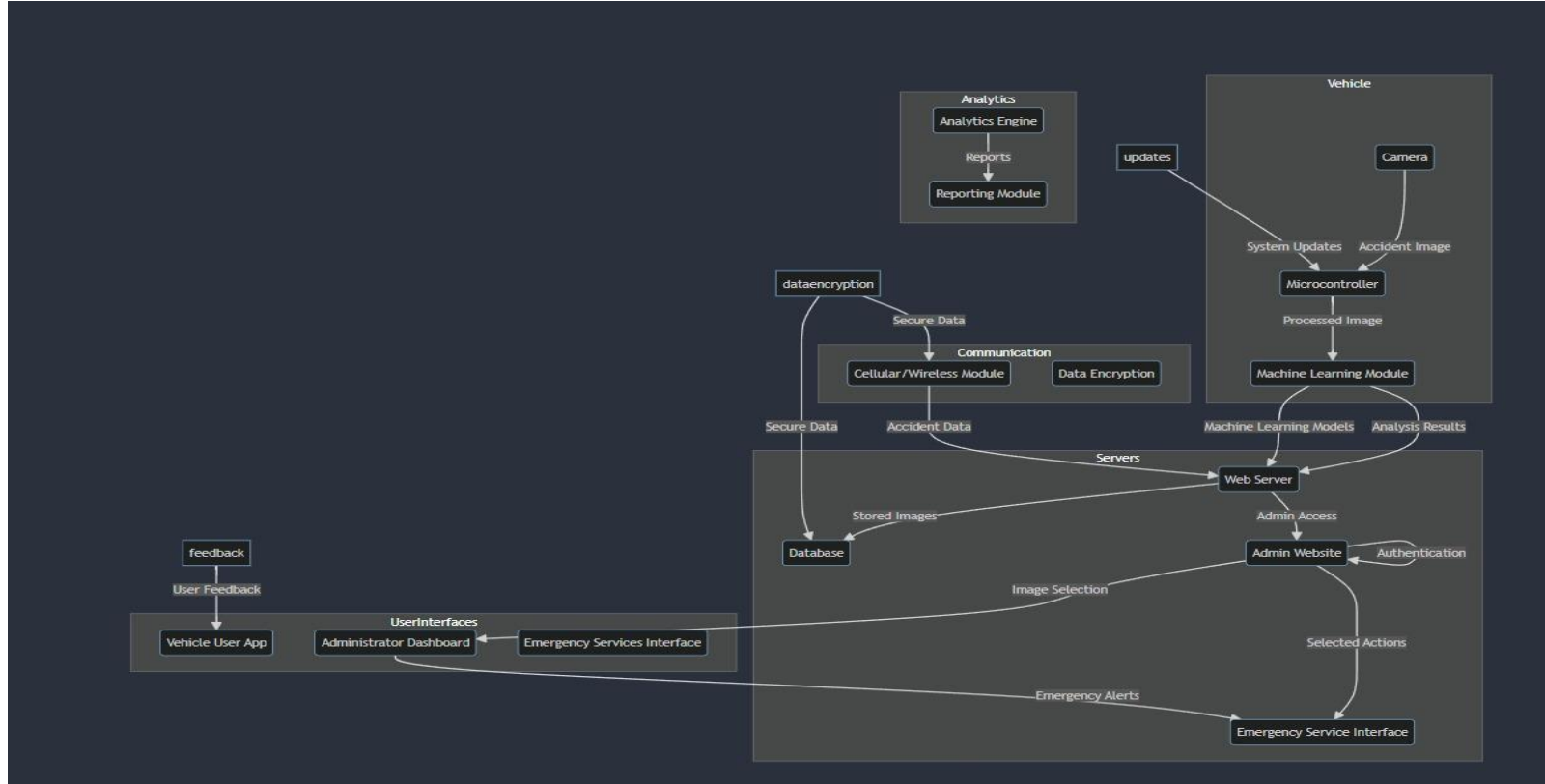
Real-Time Monitoring: Alert admin when accidents occur

Emergency Services Integration: Automated alerts for faster response.

User-Friendly Design: A clean and well-designed app enhances the overall experience.

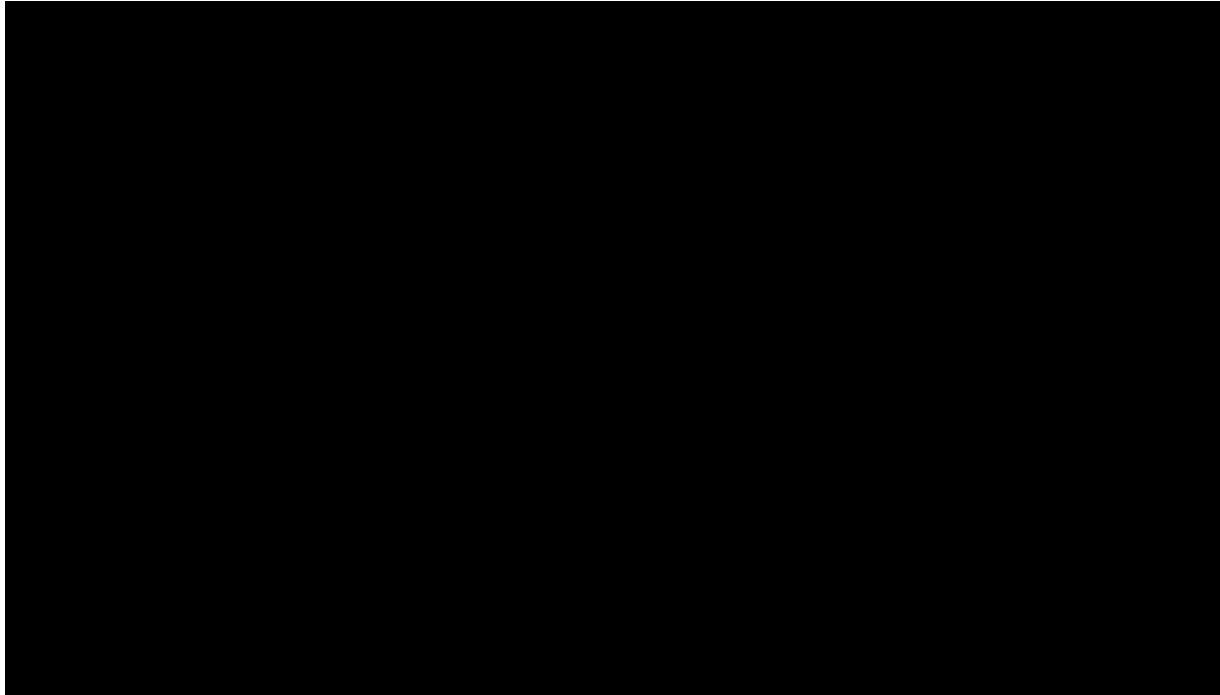


Modelling



Result / Outcomes

[Click me for output](#)



Conclusion

In conclusion, our journey into the world of vehicle accident detection using machine learning has revealed a dynamic and evolving landscape.

We've seen how past research and state-of-the-art technologies have contributed to making our roads safer.

Data sources, machine learning approaches, and performance metrics have been critical in advancing accident detection capabilities.

While challenges and limitations exist, they have driven innovation, and we've learned from real-world case studies



Future Perspective

By implementing this system, we contribute to safer roads, faster emergency responses, and improved overall traffic management. Future enhancements could include predictive analytics for accident-prone areas, user-contributed data, and seamless integration with emergency response systems.

Let's build a smarter, safer road network together!



Thank you...!