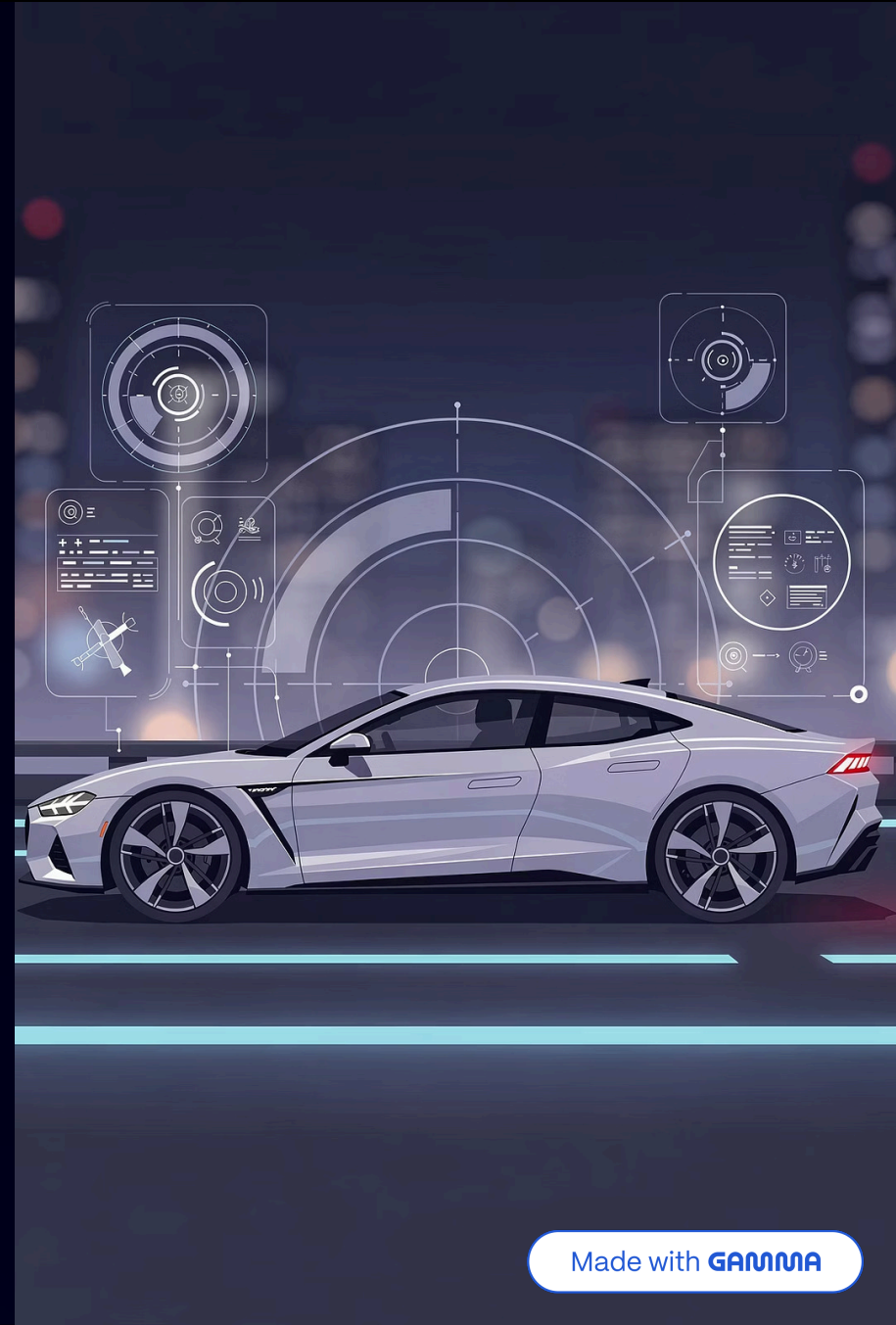# Digi-Cop

AI-Powered Night-Time Traffic Violation Detection

Pitch for Maruti Suzuki Innovation Hub

The Night-Time Road Safety Crisis

Night-time driving presents unique challenges, contributing to a disproportionate number of accidents, injuries, and fatalities. Vulnerable road users are particularly at risk when enforcement is limited.

Reduced Visibility & Enforcement Gaps

- Vehicles without headlights/tail lights go undetected
- High beam abuse blinds other road users
- Police cannot continuously monitor all roads
- Existing camera networks are often incomplete
- Weak or delayed evidence hampers enforcement

This crisis leads to more accidents, unsafe behavior, and tragic consequences for pedestrians, cyclists, and two-wheeler riders.

Real-Time AI Detection & Enforcement

Our solution leverages advanced AI and on-board camera technology to address night-time traffic violations effectively.

Detection	Capture	Verify	Report	Enforce

This streamlined process provides immediate, verifiable evidence, enabling swift action and promoting safer driving habits.

Instant Detection

On-board cameras with edge computer vision detect violations like missing lights or high beams in real-time.

Automated Capture

Short video clips and clear license plate images are automatically recorded.

Verification & Reporting

Evidence is instantly verified, timestamped, and securely reported to integrated traffic-police portals.

Effective Enforcement

Clear evidence facilitates quick enforcement, leading to tangible behavior change and improved road safety.
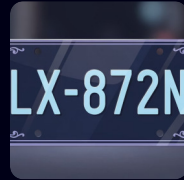
Made with GAMMA

Advanced Edge AI Technology Stack

Digi-cop's core technology integrates cutting-edge AI for robust and reliable violation detection and evidence management.

Edge-Optimized Computer Vision

Classifies headlight/tail light status and detects high beam violations in real-time directly on the device.

OCR License Plate Recognition

Accurate plate reading capabilities ensure identification even in challenging low-light conditions.

Secure Evidence Management

Timestamped video clips and cryptographic hashing guarantee tamper-resistant and admissible evidence.

Seamless Integration

API connects to traffic authority platforms for automated fine processing and streamlined enforcement.

Revenue Model & Strategic Fit with Maruti Suzuki

Our innovative revenue model and alignment with Maruti Suzuki's vision promise mutual growth and impact.

Sustainable Revenue Model

- Performance-based: Small percentage of fines collected ensures shared success.
- Scalable: Easily deployable across diverse urban and highway networks.
- Aligned Incentives: Direct correlation with authorities' enforcement goals.

Strategic Fit with Maruti Suzuki

- Enhances Safety: Boosts vehicle safety ecosystem and brand reputation.
- Integration Potential: Future integration with connected car platforms.
- Road Safety Initiatives: Supports corporate social responsibility goals.
- Industry Alignment: Aligns with automotive industry's commitment to safety.
- Scalable Deployment: Opportunities for widespread adoption through vehicle partnerships.

Join us in making India's roads safer, one night at a time.