UNDERSTAND THE WORKING OF AUTONOMOUS DRIVING USING COMPUTER VISION

UNDERSTANDING THE CONCEPT BEHIND THE AUTONOMOUS DRIVING VEHICALS

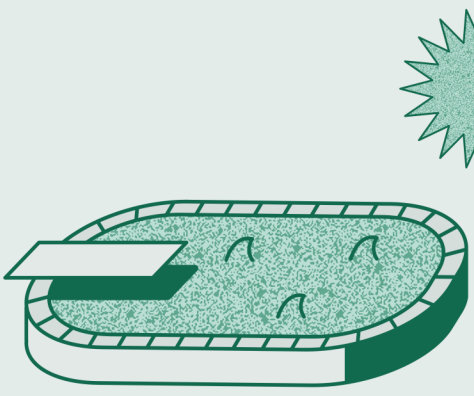
1ST

CAPTURE SURROUNDINGS

Autonomous vehicles capture their surroundings using high-resolution cameras and sensors to collect detailed, real-time visual and environmental data.

HOW?

- Cameras
- LIDAR
- Radar
- Ultrasonic sensors



2nd

PROCESS IMAGES

AI algorithms convert captured images into data, analyzing them to identify and classify objects for safe navigation.

3rd

DETECT OBJECTS

Computer vision identifies and classifies objects like vehicles, pedestrians, and signs, enabling precise navigation and safety decisions.

4th

MAKE DECISIONS

AI analyzes detected objects and surroundings to plan routes, avoid obstacles, and execute safe, efficient driving maneuvers.

5th

ENHANCE SAFETY

Real-time object detection and rapid decision-making improve safety by promptly responding to hazards and avoiding collisions.

DESIGN ELEMENTS:

(TOO POTRAY THINGS CLEARLY)

- Visuals: Diagrams, icons
- Colors: Tech-inspired palette
- Fonts: Clear, sans-serif
- Layout: Logical flow with visuals

CONCLUSION

Autonomous vehicles use computer vision to see and navigate safely. They detect objects, avoid obstacles, and make quick decisions. This technology improves road safety and driving convenience, leading us to a future of self-driving cars.