Code book

Code book-Deductive codes from the Interview Questions
Research Questions
RQ1:What are the most evolving functional requirements for the Autonomous vehicle perception system?
RQ2:What are the most evolving non-functional requirements for the Autonomous vehicle perception system?
RQ3:What challenges arise due to the evolving requirements in autonomous vehicle perception systems?
RQ4: What are the consequences of these challenging requirements in the AV perception system?
RQ5:How do we mitigate the consequences or challenges of the evolving requirements of autonomous vehicle perception systems using different methodologies?
Deductive Codes
RQ1:What are the most evolving functional requirements for the Autonomous vehicle perception system?
Evolving functional requirements
Sensor fusion
Static and dynamic obstacles
Prioritize elements in traffic situations
Real-time data processing / Quick decision-making
Accuracy of lane detection
Inter-vehicle communication or Vehicle to everything (V2X)
Multi-Sensor fusion/sensor fusion
RQ2:What are the most evolving non-functional requirements for the Autonomous vehicle perception system?
Evolving non-functional requirements
Industry standards for safety
Cyber security
Accuracy in Complex environments
Minimize risks to human life
Robustness in Poor weather conditions
Continuous testing for Reliability and safety
Deductive Codes
RQ3:What challenges arise due to the evolving requirements in autonomous vehicle perception systems?
Challenges
Simulation-based and real-world testing
Localization and object detection
Sensor uncertainty
Risk of failures
Increasing cost
RQ4: What are the consequences of these challenging requirements in the AV perception system?

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Consequences
Types of errors or blind spots
The high error rates
Sensor failures
Interactions with human-driven vehicles
RQ5:How do we mitigate the consequences or challenges of the evolving requirements of autonomous vehicle perception systems using different methodologies?
Different methodologies
Agile practices
Iterative development process
Accuracy and safety
Feedback from users
Constant testing and validation