

Here is the generated checklist:

# Requirements Capture

## Safety Requirements

- Is performance requirement allocated to AI/ML constituent?  
☐ Yes / No
- Is reliability requirement allocated to AI/ML constituent?  
☐ Yes / No
- Is resilience requirement allocated to AI/ML constituent?  
☐ Yes / No

## Information Security Requirements

- Are information security requirements allocated to AI/ML constituent?  
☐ Yes / No

## Functional Requirements

- Are functional requirements allocated to AI/ML constituent?  
☐ Yes / No

## Operational Requirements

- Is AI/ML constituent ODD monitoring requirement captured?  
☐ Yes / No
- Is performance monitoring requirement captured for AI/ML constituent?  
☐ Yes / No
- Is detection of OoD input data requirement captured?  
☐ Yes / No
- Are data-recording requirements captured for AI/ML constituent?  
☐ Yes / No

## Non-Functional Requirements

- Is scalability requirement allocated to AI/ML constituent?  
☐ Yes / No

- Are other non-functional requirements allocated to AI/ML constituent?

☐ Yes / No

## **Interface Requirements**

- Are interface requirements allocated to AI/ML constituent?

☐ Yes / No

## **AI/ML Constituent ODD**

- Has the AI/ML constituent ODD been precisely characterized?

☐ Yes / No

- Have parameters pertaining to AI/ML constituent ODD been defined?

☐ Yes / No

- Are these parameters traced to corresponding OD parameters when applicable?

☐ Yes / No

## **Inference Model Verification**

### **Inference Model Performance Evaluation**

- Has the inference model performance been evaluated using test data set?

☐ Yes / No

- Is the final performance with test data set documented?

☐ Yes / No

- Are metrics defined under SA-01 linked to this evaluation?

☐ Yes / No

- Is any divergence in metrics compared to LM-09 explained?

☐ Yes / No

### **Inference Model Stability Verification**

- Has the inference model stability been verified through verification cases?

☐ Yes / No

- Are anticipated perturbations in operational phase due to data input fluctuations addressed?

☐ Yes / No

- Are nominal, singular point, edge, and corner cases covered in stability verification?

☐ Yes / No

### **Inference Model Robustness Verification**

- Has the inference model robustness been verified through test cases in adverse conditions?

☐ Yes / No

- Are edge or corner cases within AI/ML constituent ODD addressed?

☐ Yes / No

- Are OoD test cases used to verify robustness?

☐ Yes / No

### **Inference Model Integration**

- Has requirements-based verification of inference model behavior when integrated into AI/ML constituent been performed?

☐ Yes / No