

Checklist for AI/ML Software Development and Review

Requirements Capture

- **Safety requirements:**
 - ☐ Performance requirements captured? (yes/no)
 - ☐ Reliability requirements captured? (yes/no)
 - ☐ Resilience requirements captured? (yes/no)
- **Information security requirements:**
 - ☐ Data encryption requirements captured? (yes/no)
 - ☐ Authentication requirements captured? (yes/no)
 - ☐ Authorization requirements captured? (yes/no)
- **Functional requirements:**
 - ☐ AI/ML constituent functional requirements captured? (yes/no)
 - ☐ Input data processing requirements captured? (yes/no)
 - ☐ Output data processing requirements captured? (yes/no)
- **Operational requirements:**
 - ☐ ODD monitoring and performance monitoring requirements captured? (yes/no)
 - ☐ Detection of out-of-data input data requirements captured? (yes/no)
 - ☐ Data-recording requirements captured? (yes/no)
- **Other non-functional requirements:**
 - ☐ Scalability requirements captured? (yes/no)
 - ☐ Interoperability requirements captured? (yes/no)
- **Interface requirements:**
 - ☐ API interface requirements captured? (yes/no)
 - ☐ Data exchange format requirements captured? (yes/no)

AI/ML Constituent ODD Definition

- **AI/ML constituent ODD parameters:**
 - ☐ Performance metric(s) defined? (yes/no)
 - ☐ Reliability metric(s) defined? (yes/no)
 - ☐ Resilience metric(s) defined? (yes/no)
- **ODD parameter tracing:**
 - ☐ Parameters traced back to corresponding OD parameters? (yes/no)

AI Trustworthiness Building Blocks

- **Trustworthiness analysis:**

- ☐ Performed for the entire AI/ML software development process? (yes/no)

- **Data-driven AI approaches:**

- ☐ Supervised learning approach used? (yes/no)
- ☐ Unsupervised learning approach used? (yes/no)
- ☐ Reinforcement learning approach used? (yes/no)

Terminology and Scope

- **Terminology consistency:**

- ☐ Consistent terminology used throughout the document? (yes/no)

- **Scope clarity:**

- ☐ Clear definition of AI techniques scope? (yes/no)