ISTQB® Certified Tester - AI Testing

INTRODUCTION IN AI	QUALITY CHARACTERISTICS FOR AI-BASED SYSTEMS	MACHINE LEARNING (ML) - OVERVIEW	ML-DATA	ML FUNCTIONAL PERFORMANCE METRICS	ML NEURAL NETWORKS & TESTING	TESTING AI-BASED SYSTEMS - OVERVIEW	TESTING AI-SPECIFIC QUALITY CHARACTERISTICS	METHODS & TECHNIQUES FOR THE TESTING OF AI-BASED SYSTEM	TESTING ENVIRONMENTS FOR AI-BASED SYSTEMS	USING AI FOR TESTING
Definition of AI & AI Effect	Flexibility & Adaptability	Forms of ML	Data Preparation as Part of the ML Workflow	Confusion Matrix	Neural Networks	Specification of AI-Based Systems	Challenges Testing Self-Learning Systems	Adversarial Attacks & Data Poisoning	Test Environments for AI-Based Systems	AI Technologies for Testing
Narrow, General & Super AI	Autonomy	ML Workflow	Training, Validation & Test Datasets in the ML Workflow	Add ML Functional Performance Metrics for Classification, Regression and Clustering	Coverage Measures for Neural Networks	Test Levels for AI-Based Systems	Testing Autonomous Self-Learning Systems	Pairwise Testing	Virtual Test Environments for Testing AI-Based Systems	Using AI to Analyze Defect Reports
AI-Based & Conventional Systems	Evolution	Selecting a Form of ML	Dataset Quality Issues	Limitations of ML Functional Performance Metrics		Test Data for testing AI-Based Systems	Testing for Algorithmic, Sample & Inappropriate Bias	A/B Testing		Using AI for Test Case Generation
AI Technologies	Bias	Factors Involved in ML Algorithm Selection	Data Quality & Its Effect on the ML Model	Selecting ML Functional Performance Metrics		Testing for Automation Bias in AI-Based Systems	Challenges Testing Probabilistic & Non-Deterministic AI-Based Systems	Back-to-Back Testing		Using AI for the Optimization of Regression Test Suites
AI Development Frameworks	Ethics	Overfitting & Underfitting	Data Labelling for Supervised Learning	Benchmark Suites for ML Performance		Documenting an AI Component	Challenges Testing Complex AI-Based Systems	Metamorphic Testing (MT)		Using AI for Defect Prediction
Hardware for AI-Based Systems	Side Effects & Reward Hacking					Testing for Concept Drift	Testing Transparency Interpretability & Explainability of AI-Based Systems	Experience-Based Testing of AI-Based Systems		Using AI for Testing User Interfaces
AI as a Service (AIaaS)	Transparency, Interpretability & Explainability					Selecting a Test Approach for an ML System	Test Oracles for AI-Based Systems	Selecting Test Techniques for AI-Based System		
Pre-Trained Models	Safety & AI						Test Objectives & Acceptance Criteria			
Standards, Regulations & AI										