You

I just built an AI search system for training guides, what stages of testing can I do and what possible tests can I do for it?

Copilot

Congratulations on building your AI search system! Testing is a crucial step to ensure its reliability and effectiveness. Here are some stages of testing and possible tests you can perform:

Training, Validation, and Testing:

Training: During this stage, your AI model learns patterns and relationships from a dataset.

Validation: Fine-tune and optimize the model using validation data.

Testing: Assess the model's performance on new data [2].

AI-Specific Testing Considerations:

Data Quality: Validate the quality of your training data.

Model Accuracy: Evaluate how well the model predicts outcomes.

Bias Detection: Check for biases in predictions.

Robustness: Test the model's behavior under different conditions.

Exploratory Testing: Experiment with various scenarios [1].

Tools and Techniques:

Visual Testing: Assess the application's look and feel using image-based learning and screen comparisons.

Declarative Testing: Specify test intent in natural or domain-specific language, letting the system decide how to perform the test [4].

Remember that AI testing is iterative, and continuous improvements are essential. Good luck with your testing process! 😊🚀

Source: Conversation with Copilot, 9/30/2024

The 4 Stages of AI: Understanding the Journey to Intelligent Machines

Chapter 6 - Testing and Iteration | AI in Production Guide

AI in Software Testing | Best Approaches to Look in 2024 - TestingXperts

You

How can I experiment with various scenarios for exploratory testing?

Copilot

Certainly! Exploratory testing involves actively exploring the application to uncover issues. Here are some techniques you can use:

Ad Hoc Testing:

Freestyle exploration without predefined test cases.

Investigate different features, inputs, and edge cases.

Scenario-Based Testing:

Create realistic user scenarios.

Test how the system responds to specific actions or sequences.

Boundary Testing:

Push system boundaries (e.g., maximum input length, extreme values).

Observe how the application handles these situations.

Negative Testing:

Purposefully input incorrect data.

Verify error handling and graceful degradation.

Exploring Data Variability:

Use different data sets (valid, invalid, edge cases).

Observe how the system processes them.

Time-Related Scenarios:

Test during peak load times or low-resource conditions.

Check for performance issues.

Remember, exploratory testing is creative and flexible. Trust your instincts and document your findings. Happy testing! 😊🔍

You

What boundaries can I test for this AI search?

Copilot

Certainly! When testing your AI search system, consider exploring the following boundaries:

Input Length:

Test with very short and very long queries.

Observe how the system handles different input lengths.

Special Characters and Symbols:

Include special characters (e.g., punctuation, emojis).

Verify if the system processes them correctly.

Ambiguous Queries:

Test queries with multiple interpretations.

Check if the system provides relevant results.

Synonyms and Variations:

Use synonyms or similar terms.

Ensure the system captures context and variations.

Out-of-Vocabulary Terms:

Introduce uncommon or domain-specific words.

Evaluate how the system handles unfamiliar terms.

Edge Cases:

Test extreme values (e.g., empty query, very long query).

Verify robustness and error handling.

Remember to document your findings and iterate on improvements. Happy testing! 😊🔍