Graph traversal is a fundamental concept in computer science and is crucial for understanding and analyzing the structure of graphs. A graph traversal visualizer website serves as an interactive tool that allows users to explore and visualize various graph traversal algorithms in real-time.

The website supports multiple graph traversal algorithms such as Breadth-First Search (BFS), Depth-First Search (DFS). Users can choose which algorithm to apply to the graph they have created.

To demonstrate BFS and DFS traversal, a random graph is generated using the tool. Random graphs are suitable for testing algorithms as they exhibit a variety of structural characteristics without bias towards specific patterns.

As the selected algorithm runs on the graph, the visualization dynamically updates to show how vertices are traversed and in what order. This real-time visualization is crucial for understanding the step-by-step process of each algorithm. Users can customize the visualization by adjusting parameters such as animation speed.

These options enhance the learning experience by allowing users to focus on specific aspects of the algorithm or graph. The website may provide additional educational resources such as explanations of each algorithm. These resources help users grasp the theoretical concepts behind graph traversal.