Pathfinding within the Nez Framework

This resource covers the general pathfinding algorithms used by the Nez Framework. This is designed around 2D-focused games, but the overall logic can apply outside of the specified framework. Within it are links to the Nez Github repo with code examples for each pathfinding algorithm.

Introduction to the A* Algorithm

Introduces the concept of the A* algorithm and the algorithms it takes elements from, those being the Breadth First Search and Dijkstra's algorithm. Showcases how this algorithm differs from similar ones with interactive graphs and snapshots of code.

Variants of Graph Searching Algorithms

Covers various alternative algorithms to the A* model and some of their general applications. Alongside variations, it also covers two of the ways the fields for the distance/direction are represented at each square in a grid.

Jump Point Search Visual Explanation

Overview of the Jump Point Search algorithm alongside the graphs to better visualize how it optimizes the A* algorithm.

<u>Implementation Examples of the A* and Other Algorithms</u>

Showcases examples of pathfinding algorithms within Python, C++, and C# alongside ways the code can be optimized based on the use cases of the algorithms. Covers some of the changes the author made to the algorithms that are seen in textbooks, with some of the common issues encountered while debugging/testing the algorithms.