A* Algorithm Visualizer

ABSTRACT

Algorithm visualization illustrates how algorithms works in a graphical way. It mainly aims to simplify and deepen the understanding of algorithms operation. This project discusses the possibility of enriching the standard methods of teaching algorithms, with the algorithm visualizations. As a step in this direction, we introduce the algorithm visualization platform using A* algorithm, present our practical experiences and describe possible future directions, based on the experiences and exploration.

AIMS AND OBJECTIVES

Objectives of the A* algorithm visualizer :

- The main objective of pathfinding visualizer is to find a shortest path.
- Also, we can use this pathfinding visualizer as a visualization tool for educational purpose to understand the working and implementation of various pathfinding algorithms.
- It is also used to GPS system to find the path.

BASIC FUNCTIONALITIES

A single-page system aiming to provide innovative and intuitive visualization of A* algorithm.

SOFTWARE REQUIREMENTS

Language: Python

Packages: Pygame and Math

IDE: Visual Studio Code

HARDWARE INTERFACES

Operating system: windows 7 or more

Processor-Pentium (R) Dual Core CPU

Hard disk- 40GB

RAM- 256MB or more