

Title: Pathfinding Visualiser

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Category: Computer Vision

Pathfinding is the process of finding the most optimal path between two points. This project takes the guesswork out of manually planning a journey and plotting the route towards a desired destination.

My project aims to find the shortest route between two destinations on a map for a traveller. This will be achieved by taking in an image of a road and then masking out the lines of the road, therefore removing unnecessary items such as rivers, forests and lakes. Subsequently, the masked image is converted into a binary image where the process of skeletonisation will then reduce the binary image into a 1-pixel-wide skeleton. From the skeleton, the program will recognise the road intersections and place them into a neighbourhood representation which Dijkstra's algorithm can process to return the shortest path to finally display in a user-friendly UI to the user.