Build a game AI

GAMes and AI

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# Abstract

Almost all modern games rely upon some form of Artificial Intelligence (AI), ranging from simple pathfinding algorithms to fully fledged decision making enemies with teamwork abilities. One of the most common forms of AI found in most games is pathfinding, allowing AI agents to find the quickest route between two points.

# Introduction

The aim of this task is to implement a weighted A\* pathfinding algorithm which steers an AI agent over a varied map avoiding any objects. This report covers the necessary background research required to complete the algorithm as well as a detailed look at the implementation.

The popular indie game development engine Unity (REF) has been used in order to provide a better visual representation of the algorithms progress. The entire program was written using C#, including the many prerequisites for the algorithm.

# Game and AI type

The AI shown here is an A\* pathfinding algorithm designed for use in a shooter game be it a top down or first person shooter. However, as a very generic algorithm it can easily be used for a large variety of game genres.

# Background theory

# Methodology

# 3rd party additions

# Conclusion

# References

# Appendix