

# Abstract

This thesis serves as an introduction to anyone that has an interest in artificial intelligence games and has experience in programming or anyone who knows nothing of computer games but wants to learn about it. The first part will present a brief introduction to AI, then it will give an introduction to games and game programming for someone that has little knowledge about games. This part includes game programming terminology, different game genres and a little history of games. Then there is an introduction of a couple of common techniques used in game AI. The main contribution of this dissertation is in the second part where three techniques that never were properly implemented before 3D games took over the market are introduced and it is explained how they would be done if they were to live up to today's standards and demands. These are: line of sight, image recognition and pathfinding. These three techniques are used in today's 3D games so if a 2D game were to be released today the demands on the AI would be much higher than they were ten years ago when 2D games stagnated. The last part is an evaluation of the three discussed topics.

## Keywords

Artificial intelligence, AI, Game, 2D, Platform, Line of sight, Image recognition, Pathfinding.