

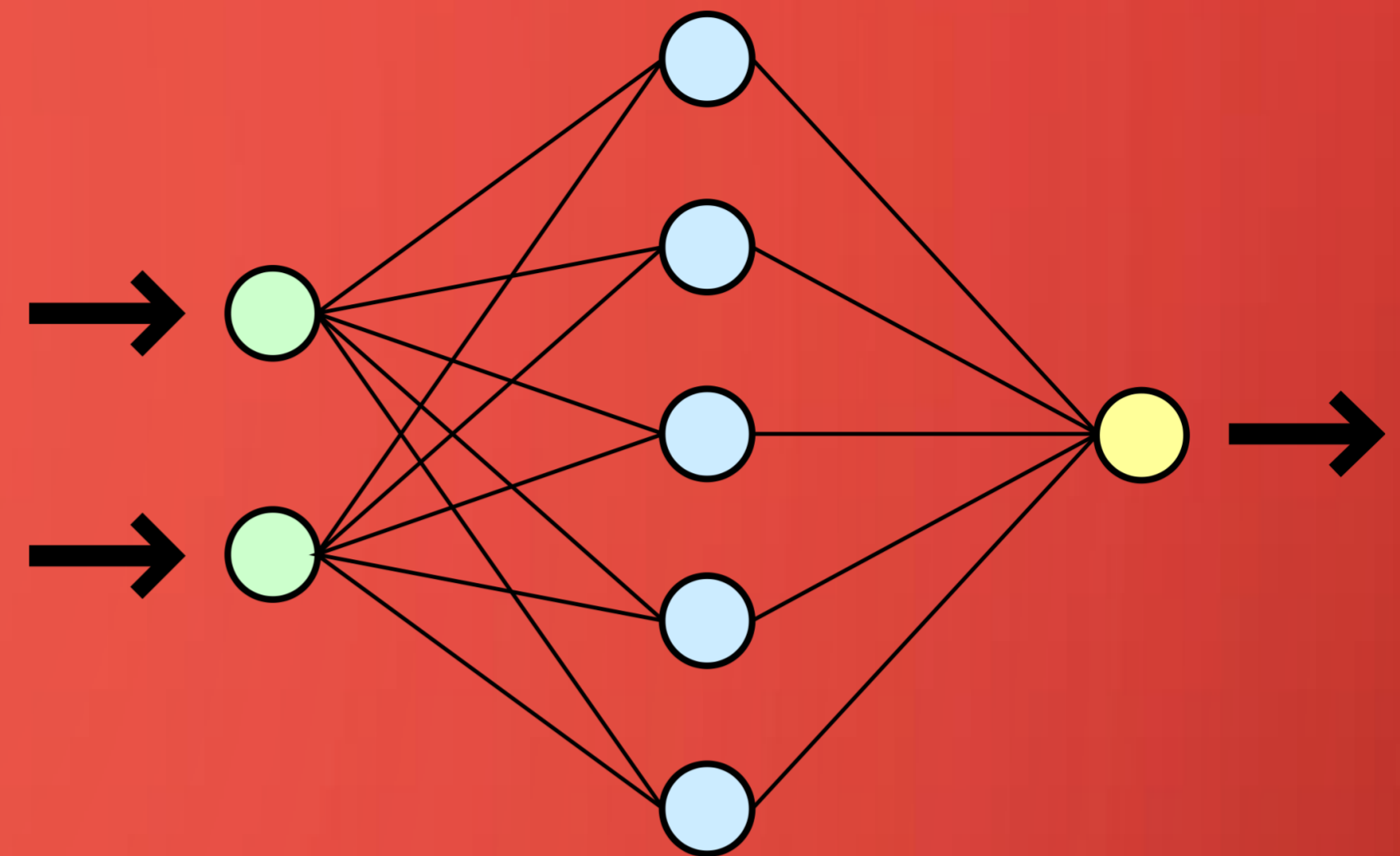
# THE ADVANCEMENT IN VIDEO GAME ARTIFICIAL INTELLIGENCE

RYAN BROWN

UNIVERSITY OF HUDDERSFIELD

## What is the Research?

The research taking place is to review and assess the advancements in Video Game Artificial Intelligence and research into the next stage of what is to come in the future with the possibility of using neural networks in Video Games.



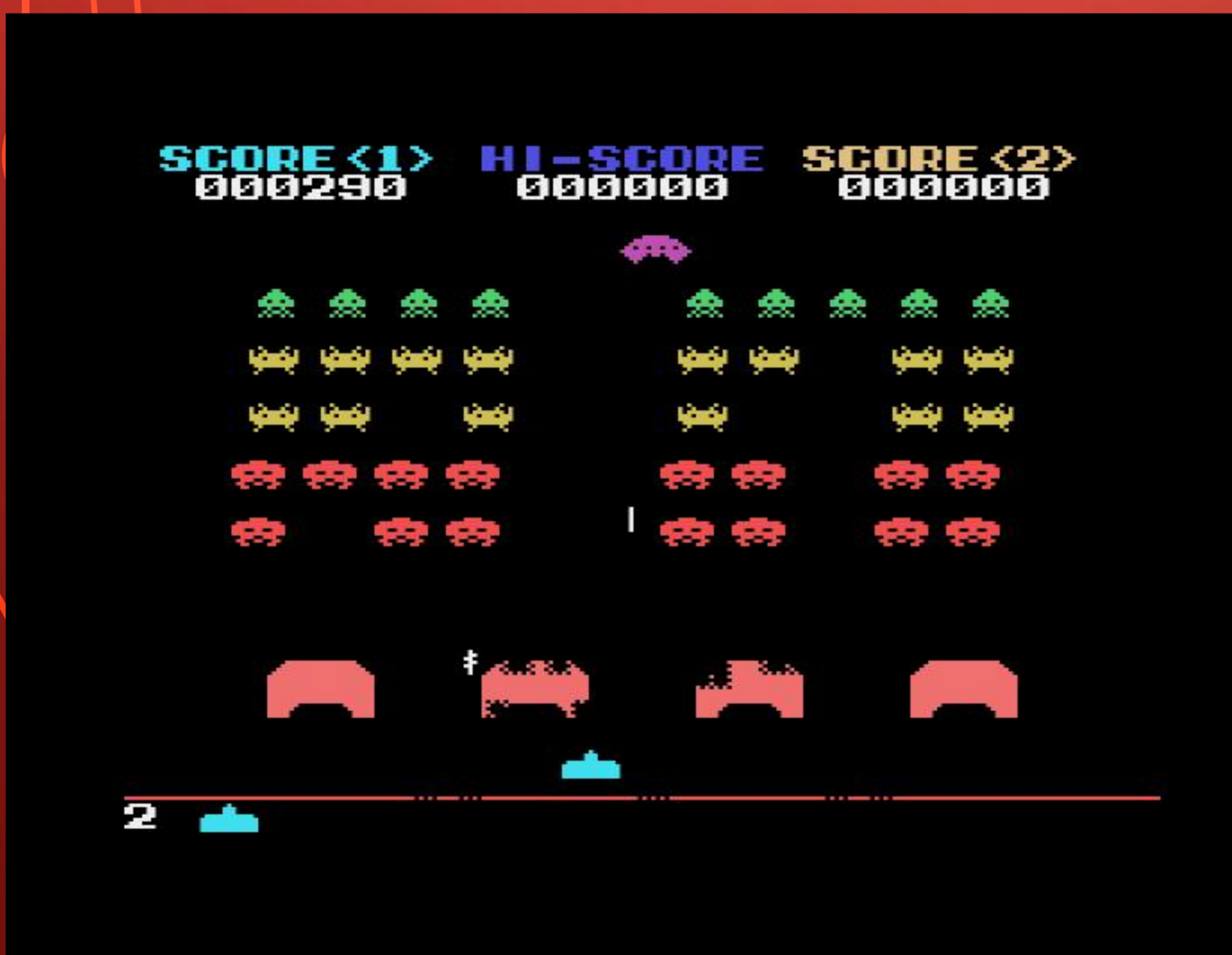
Simple diagram of a Neural Network

## Why this Research?

When playing a lot of games you will usually find they all contain an AI of some kind these are usually restricted to their capabilities and eventually will become repetitive and boring so the aim is to be able to use AI that can adapt like a player would to a situation making these games much more fun and challenging.

## Possible Solution?

The best solution to this research question that has been found so far would be to use a neural network AI due these types of AI being capable of adapting to situations learning from their mistakes and trying a new approach until they become almost unbeatable. Making it an excellent choice to use in a fun Video Game.



Space Invaders

## Next Steps

The next steps in the research are to go about the creation of a prototype Neural Network AI that can play a simple game such as Pac-Man or Space Invaders etc. the results from this prototype test will reveal whether the use of a Neural Network AI is next possible step in Video Game Artificial Intelligence.