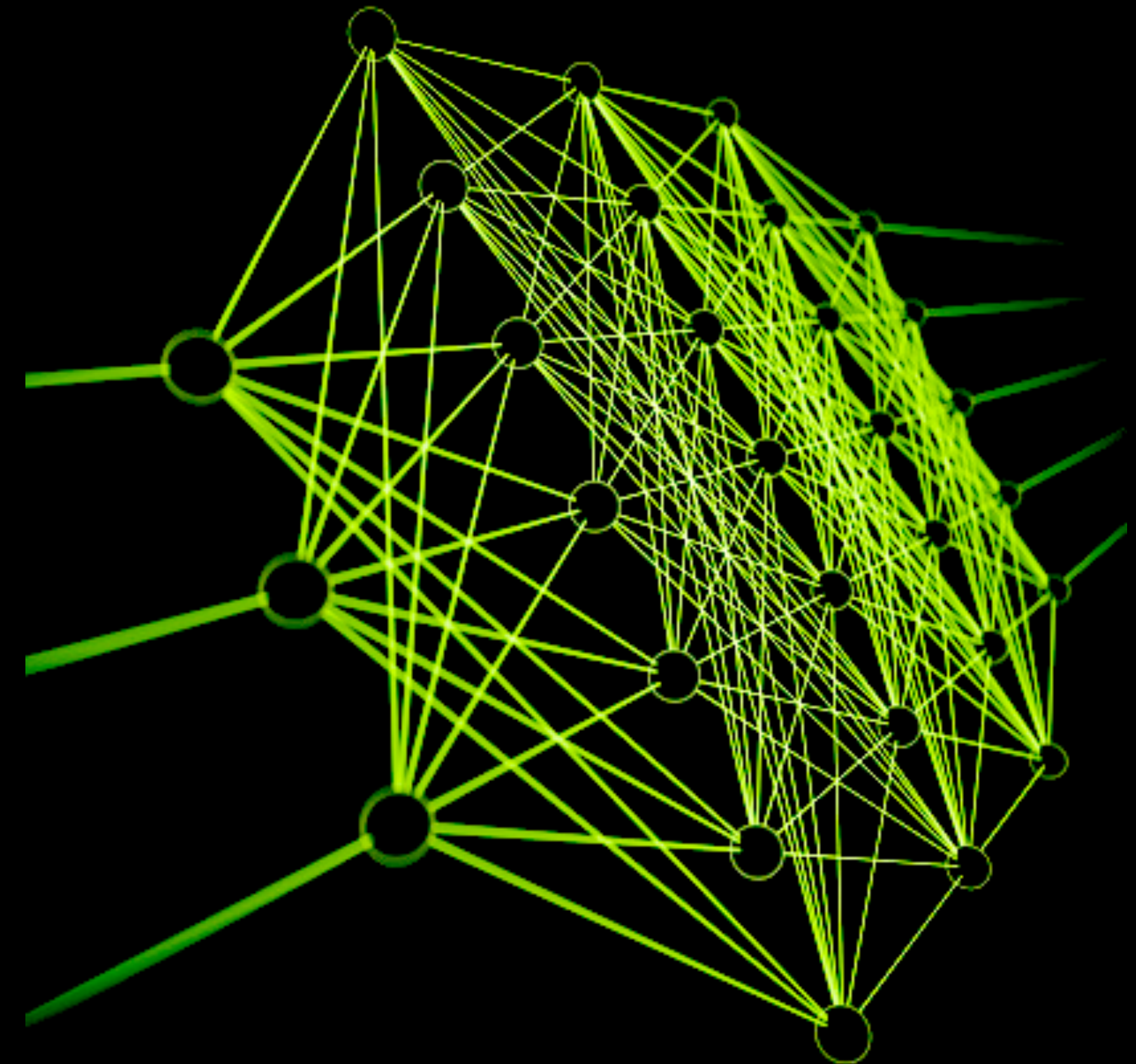# Deep Reinforcement Learning

Deep Learning and Neural Networks

- Inspired by human brain

- *Learn/optimize by deriving tensor calculations (during backpropogation) to minimize/maximize the error/loss.*

- They are **universal function approximators**

Deep Reinforcement Learning

Algorithm: Deep Q Learning

- DQN uses deep learning to approximate the Q-function in reinforcement learning

- DQN combines experience replay and fixed Q-targets to stabilize learning

- DQN can handle high-dimensional, nonlinear environments