

## Intro

So let's start with two questions, what is deep learning, and what is it used for? The answer to the second question is pretty much everywhere.

Recent applications include things such as beating humans in games such as Go, or even jeopardy, detecting spam in emails, forecasting stock prices, recognizing images in a picture, and even diagnosing illnesses sometimes with more precision than doctors.

And of course, one of the most celebrated applications of deep learning is in self-driving cars.

And what is at the heart of deep learning? This wonderful object called neural networks.

Neural networks vaguely mimic the process of how the brain operates, with neurons that fire bits of information. It sounds pretty scary, right?