Connecting Neuroscience and Machine Learning

Don’t get Eaten by the Tiger

## Neuroscience of Decision Making

### The Neuron

What is the basic **unit of information** for a neuron?

How do we **encode** it mathematically?

### Two Populations of Neurons

Label the graph:

A screenshot of a diagram

Description automatically generated

A line drawing of a piece of paper

Description automatically generated

### Making Decisions

Label the graph:

Where is the **50-50 chance line**?

Fill in the graph with your answers:

A graph with text overlay

Description automatically generated

## Machine Learning of Decision Making Diagram Description automatically generated

### The Algorithm

What is an **algorithm**? Give an **example**?

What is **Machine Learning**?

### The Node

**Label** the graph:

A screenshot of a diagram

Description automatically generated

**Draw** the **functions** could be used in a node and what are they good for?

A square with black lines

Description automatically generated

What does an **Artificial Neural Network learn**?

### An Artificial Neural Network

**Label** the graph:

A screenshot of a cell phone

Description automatically generated

How are you **smarter than AI?**