Neural Networks
a.k.a. Will I Graduate?

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How Does the Brain Work?

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Like a Network!

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A neural network tries to simulate how neurons work in the brain in order to get a (hopefully) appropriate response given a certain input.

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Key Components of Neural Network:

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- Input nodes.

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Key Components of Neural Network:

- Input nodes.
- Output node(s).
- Transitions.
- Hidden Layers.

What About Learning?

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The Basic idea...
Take some data, see what the network predicts, adjust accordingly, and then repeat!

I Don't Have Any Data!

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The Big Question:

How much can we learn from making general 'duh' observations?

So *Will* You Graduate?

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The Big Questions:

- are you a senior?
- did you submit an application for graduation?
- do you go to class?
- do you do your homework?
- do you drink?
- do you play video games?
- do you need credits to graduate?
- do you need specific classes to graduate?

Does it Work?

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Define Work...

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Define Work...

- Reasonable predictions.

Does it Work?

Define Work...

- Reasonable predictions.
- Consistent predictions.

References

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Matlab
Help files used extensively.

Beamer
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Questions?