

Welcome to AIS!!

# AI & Solutions

## Goals (F24):

- Train a NN to play Othello
- Deploy Online

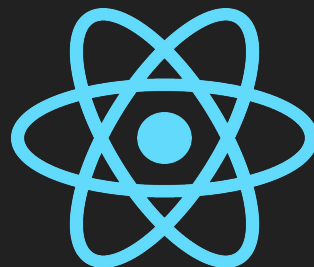
## Reasons to Join:

- Paced to teach ML
- Beginner-friendly!!
- Web Dev experience

## Objectives:

- Learn a variety of models
- Try to solve problems

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# What are we doing this semester?

## Learning:

- How the internet works
- How a neural network works

## Doing:

- Building neural networks (plural now!!) with PyTorch
- Creating Web Apps with Node/React/TypeScript

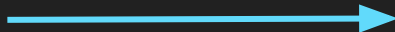
**The Goal is to deploy a website with everyone's model in it!**

# The Plan:

Commit notes & tutorial code

Week 1

Introductions &  
Project Overview

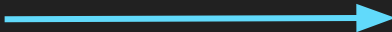


3Blue1Brown &  
PyTorch tutorial

Commit diagram, notes, and backprop algorithm

Week 2

3Blue1Brown &  
NN Diagram

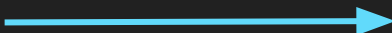


Analysis of  
Backpropagation

Commit notes and NN code

Week 3

Finish Backprop  
Start Simple NN



Finish Simple NN &  
Encoding Discussion.

# The Plan:

Week 4 will be the last week we take up your time; from there it's just coding.

Start doing research. Find people who trained models for your game already, compile questions, and try to answer them. Figure out what is preventing you from doing the project, and fill in the gaps. Ask me or CJ any questions.

There is a web dev component to this project. If you want to get ahead on it, follow the slides I have for web dev. Its a brain twist, but just as important to our project.

# The Plan:

There is still a lot of learning to do, but now you have the basic understandings

**Find research papers and other resources online!!**

There will be helpful info in the [AIS resources repo](#). Try looking through it if you get stuck. Additionally, please commit to it if you find useful resources like youtube videos, or research papers.

# Git / Github

- Git is a Command Line Interface (CLI). You access git by typing \$git \_\_\_\_
- Git is used to
  - Manage your files
  - Track a document's history
  - Allow you to contribute to others projects
- Github is an online storage of repositories
- We use repositories to store our work

# Repository Structure

- Main repository
- Fork the main repository
- Send your work to your fork through “commits”
- Move work from fork to main through “pull requests”
- Learning repository



# How to succeed in RCOS

1. Your credit-hour count determines the amount of contributions you need
  - a. 4 hours: 20 commits by mid-semester
  - b. 3 hours: 16-18
  - c. 2 hours: 14-16
  - d. 1 hour: 12-14
  - e. Club: not graded
2. Commit work *\*even\** when you're not finished with it. A commit isn't finished work, just an appreciable amount of progress.
3. Commit often, about every half hour if you're doing consistent work.
4. PLEASE TAKE NOTES ON LEARNING MATERIAL AND COMMIT THEM TO YOUR LEARNING REPOSITORY ITS FREE COMMIT MATERIAL

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end