CS 492
Introduction to Research

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  - Office Hours: Wed 12PM-1:50PM

Agenda

- Course Overview
- Syllabus and Administrivia

Course Overview

- **Goal** - Prepare you for:
  - Doing research
  - Completing an Honors Thesis
- You should **dive in early**!
  - Figure out what interests you
  - Choose a research area
  - Plan courses accordingly

Things We'll Talk About:
Motivation and Process

- Why you should do research and thesis
- What is the research process like?
- Reading the literature
- Charting your path towards a thesis

Things We'll Talk About: Practicum

- Research that CS professors are doing @ IIT
- Research that CS undergrads are doing @ IIT
- Career paths

Guest Lectures

- IIT College of Computing **Professors**
- **Undergraduates** who are doing/have done research

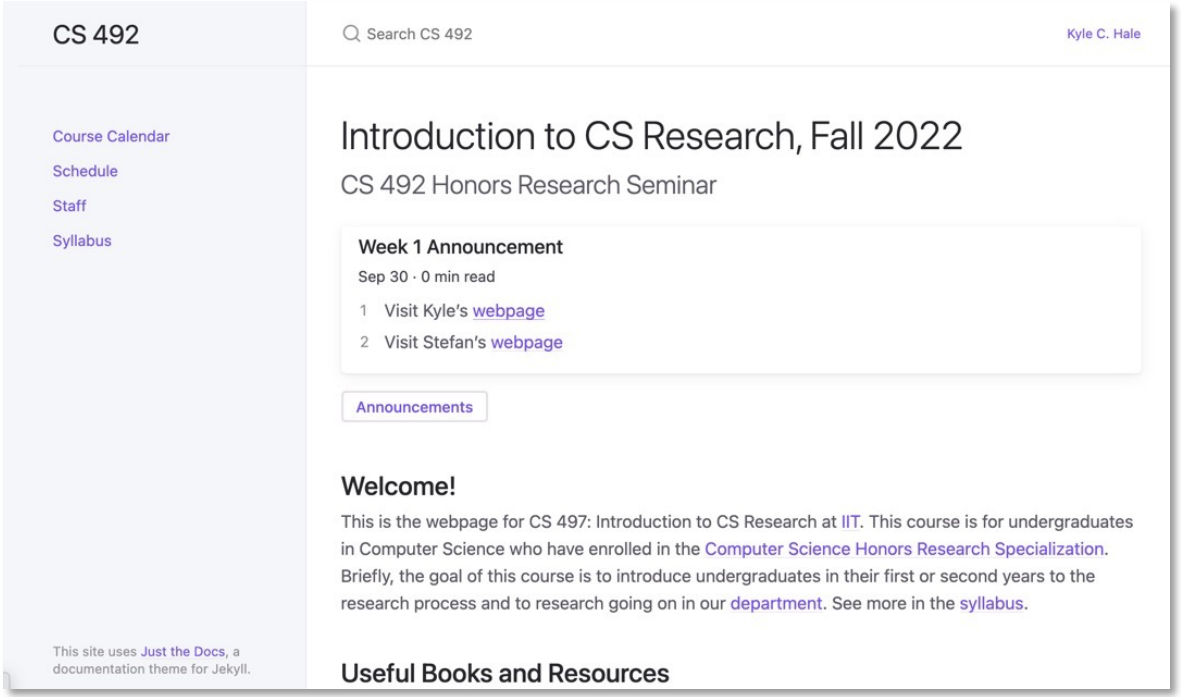
Syllabus

Prerequisites

- Formally: **no course prereqs.**
- You are enrolled in the Honors Research Specialization
- You are a first or second-year CS undergraduate

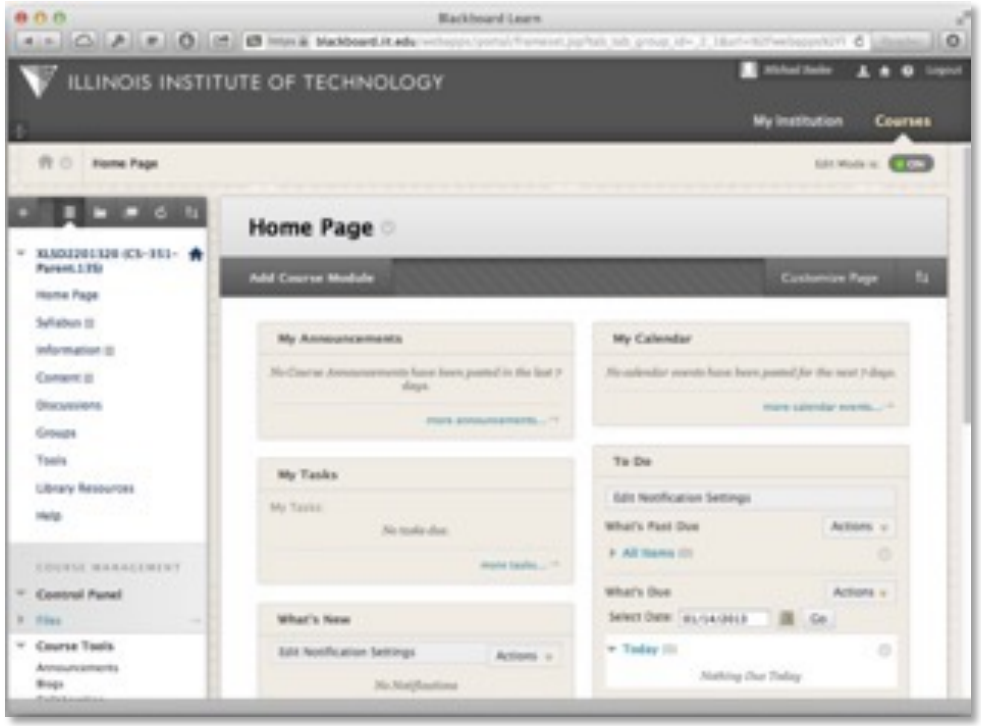
Online Resources

- 1. Course Website
  - https://khale.github.io/iit-ugrad-cs-research-class-site
  - static information
    - lecture calendar
    - announcements
    - assignment handouts
    - slides
    - links
    - useful links, etc.



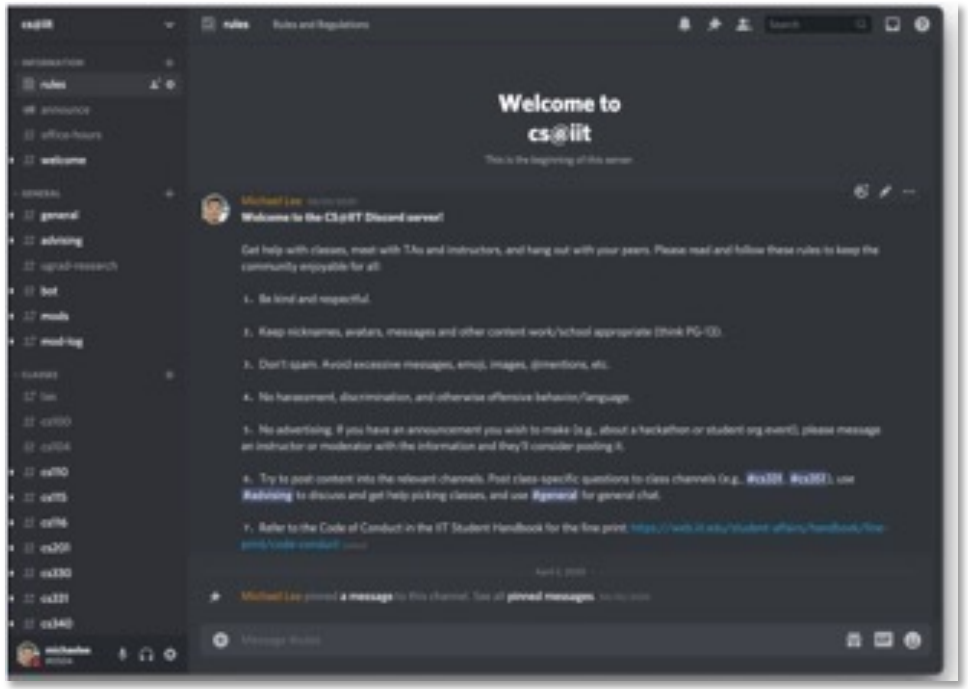
Online Resources

- Blackboard
  - Grades (that's it)



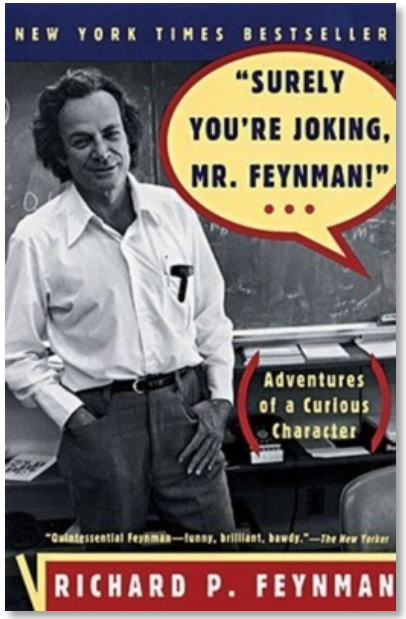
Online Resources

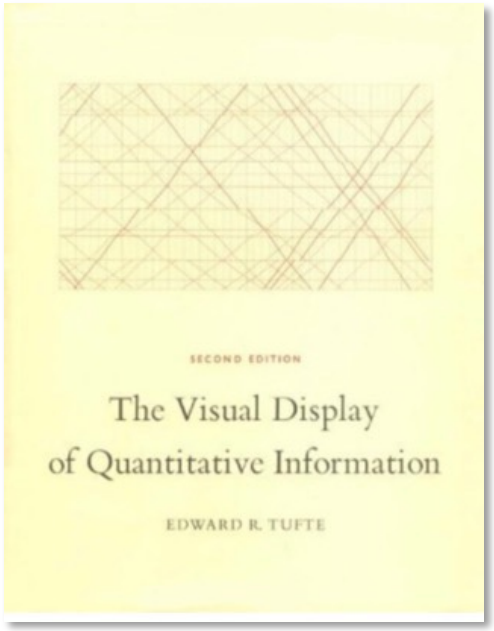
- Discord: discussion forum
  - Questions about:
    - class
    - research
    - advice, et.c
  - Text, audio chat, screen-sharing, etc.

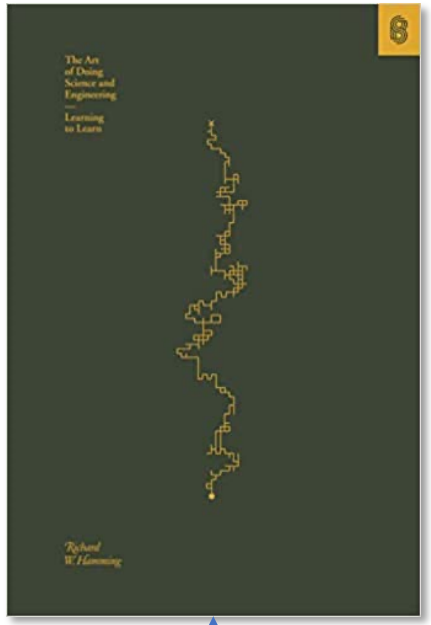


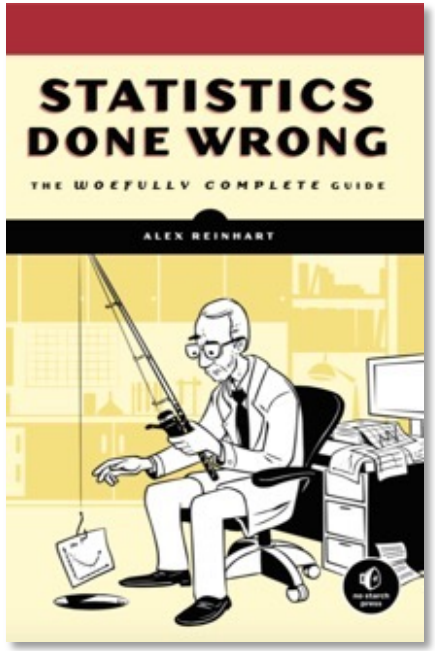
Books

- **No required books**, but here are some that you should check out:









The Art of Doing Science and Engineering, by R. Hamming

Grading

- 25% Attendance
- 25% Participation
- 50% Assignments

Grade Scale

- A: 90-100%
- B: 80-89%
- C: 70-79%
- D: 60-69%
- E: 0-59%

Exams

- There are no exams

Assignments

- There will two assignments (papers)
  - The first will be due in the middle of semester (midterm week)
  - The second will be due at the end

Your First Assignment

- Pick some area of CS
  - Ideas: machine learning, graphics, security, HPC, systems, databases, architecture
  - Must be represented by at least one faculty in our department
- Review faculty research in that area

Honors Specialization Requirements

- **CS 492** (this class)
- Six (6) credits of **CS 491 or CS 497** (can mix/match)
- >= **two 500-level graduate courses** (approved by your advisor)
  - CS 597 doesn't count
- **Research project** advised by a CS faculty member, ends with honors thesis
  - Present this to committee in your last semester
  - *Ideally* results in published paper

http://bulletin.iit.edu/undergraduate/colleges/computing/computer-science/bs/#specializationstext