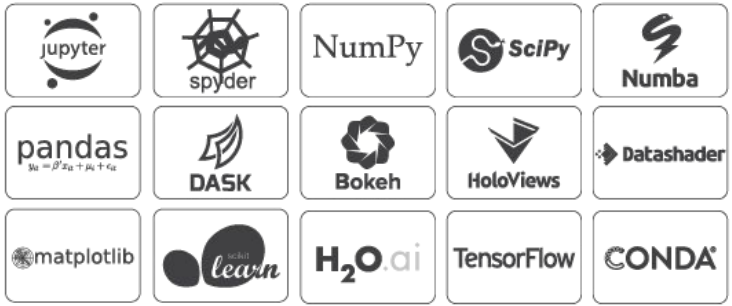
# Welcome to INFO 1998!

*First Step: Get the required software*

**1.**

Anaconda



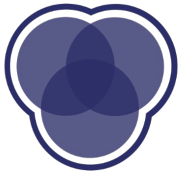

https://www.anaconda.com/distribution/

**2.**

Open **Terminal (**MacOS**) / Command Prompt (**Windows**),**
**Type and enter:** jupyter notebook

# Lecture 1: Introduction

**INFO 1998: Introduction to Machine Learning**



CDS Education

# Agenda

1. **Meet the Team**: Who are we?
2. **Course Syllabus**: What will we learn?
3. **Introduction**: What is Data Science / Machine Learning?
4. **Course Logistics**: How will we learn?
5. **Getting Started**: Software & Demo

# Who are we?

## Cornell Data Science

### Project Team

- Data Science
- Machine Learning Engineering
- Data Engineering
- Quantitative Finance

### Community Outreach

- INFO 1998
- Tech Talks

# Course Manager

*Who you'll have to bear with*

**Mericel Tao**

CS '26

mst223@cornell.edu

*DS Subteam*

# Course Staff

*Backbone of INFO 1998*

- Mericel Tao
- Boss
- Kaitlyn Lu
- Leo Qian
- Letitia Soare
- Lucas He
- Michelle Zhou
- Mihir Kulshreshtha
- Rahi Dasgupta

# Getting to know your classmates

**Spend 5 minutes going over the following:**

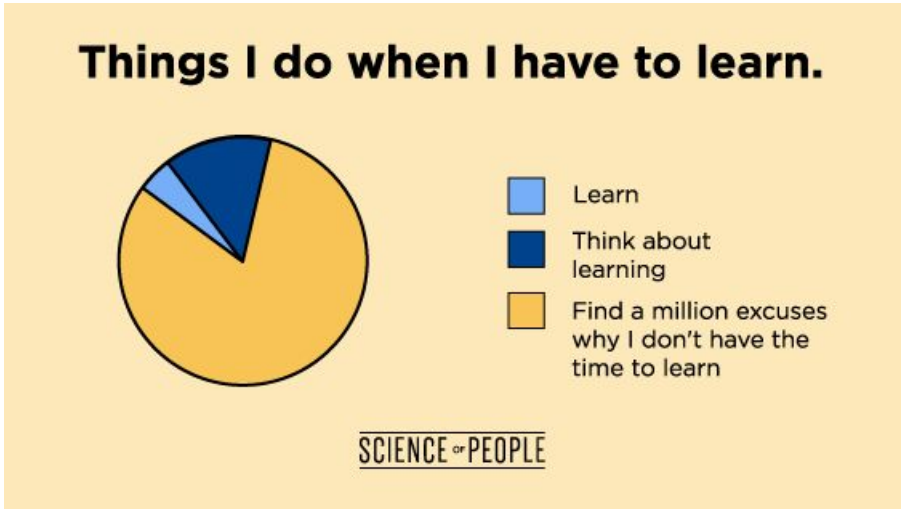
- Name
- Major
- Why you are taking this course
- If you were a baseball player, what would your walk up song be?


Project Team Website: cornelldata.science
Course Website: cornelldatascience.github.io/info1998/

# What Do You Get Out of This?

*What you will have accomplished by the end of this?*

F·R·I·E·N·D·S




# What is Data Science?

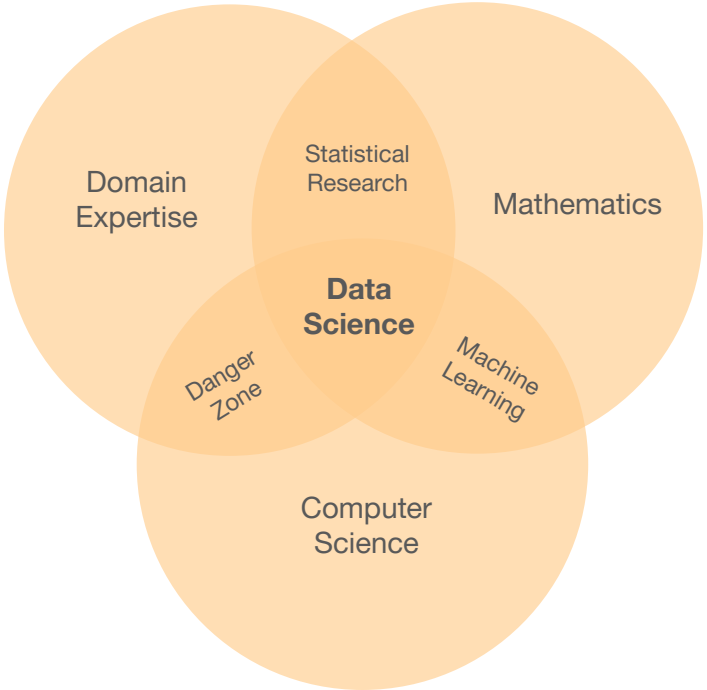
# What is Data Science?

“By "Data Science", we mean almost everything that has something to do with data: Collecting, analyzing, modeling..... yet the most important part is its applications --- all sorts of applications.”

*Journal of Data Science*

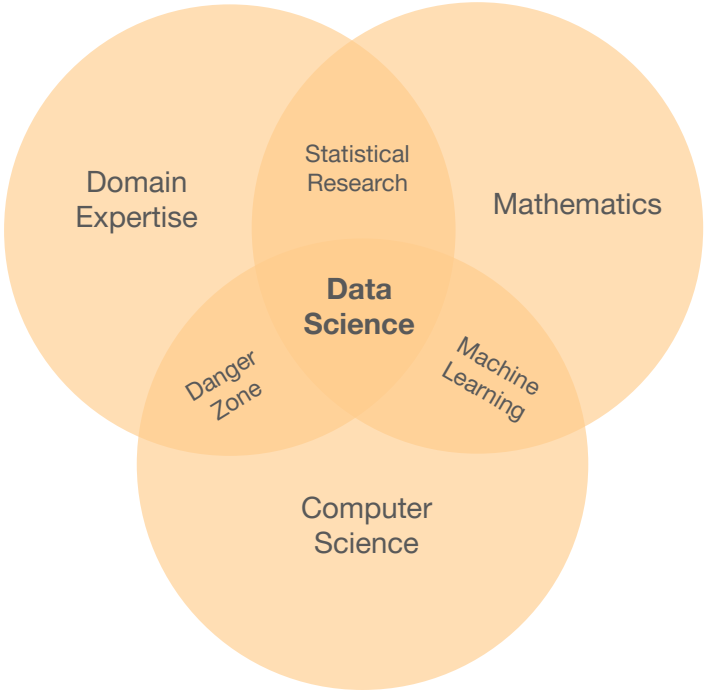
# What is Data Science?

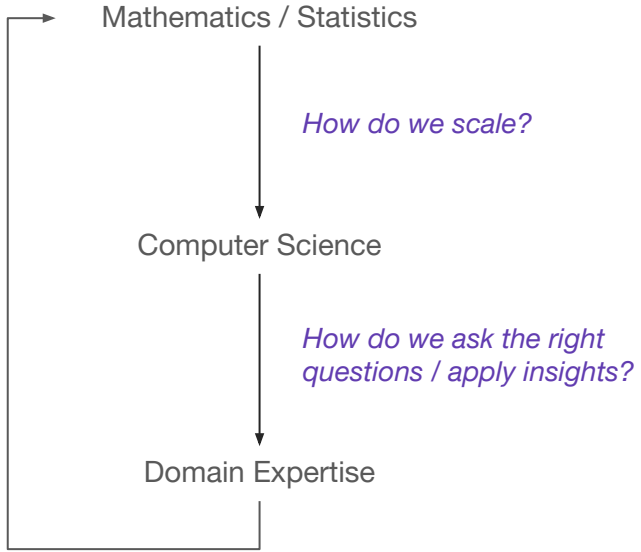
*Conway's Data Science Venn Diagram*



# What is Data Science?

*Conway's Data Science Venn Diagram*



# Data Science ≠ Machine Learning

# Applications of Data Science

*We'll be back to this slide!*

| | |
|---|---|
| **Predictive** | Stock Prices |
| | Netflix Recommendations |
| **Preventive** | Medical Diagnosis |
| | Social Impact Analytics |
| **Real-Time** | Digital Advertising |
| | Autonomous Vehicles |

# Course Objectives and Syllabus

*What you should aim to understand by the end of the course*

| OBJECTIVES | SYLLABUS |
| --- | --- |
| Manipulating Data | Data Manipulation / Visualization<br>*Lectures 1-3* |
| Communicating Data | |
| Understanding of ML as a concept | Fundamentals of Machine Learning<br>*Lectures 4-5* |
| Intuitive understanding of ML models | |
| Implementation of ML models | Supervised Learning<br>*Lectures 6-8* |
| Comfort Using Python | |
| Applications in Industry | Unsupervised Learning<br>*Lecture 9* |
| Project Experience | |

**Syllabus is posted on our website.**

# FAQs

*Is this class a good fit for you?*

## 1) Will I become a Data Scientist / Machine Learning Engineer?

*No, you will not. The course covers a breadth of concepts, helps build intuitive understanding of some models, but does not dive too deep into the mathematical complexities (since this is a 1000-level course). However, feel free to come to office hours if you're interested in learning more.*

## 2) How much time commitment is this course?

*Completely up to you. It's not hard to pass the class if all you want is basic street-fighting machine learning skills, which is fine too – that'll require less than 1 hour per week. If you want to put some more time in and come up with a creative and cool data science project that you can be proud of, that will take more time but is very rewarding!*

## 3) I have no background in CS / Stats – am I underprepared?

*Not at all! We'll teach you everything you need to know, but you may have to spend a little more time getting comfortable with Python. A number of non-STEM graduate students have taken this class in the past to understand basics that they could apply to their research. A large number of freshmen also take the course because they're excited to learn more about the field. TL;DR: If you're interested, give it a shot!*

# Course Logistics

*How is the class structured (and graded)?*

**9 assignments (~1 assignment per lecture)** — **55%**

*We drop your lowest score!*

**Project** — **40%**

*2-3 students*

**Attendance** — **5%**

*What you are doing right now* ☺️

**Passing Grade: 70%**

# Project Details

*More details to come on the final project rubric and our website*

## Pre-Processing and Manipulation

*Any necessary cleaning and manipulation of the dataset*

## Visualizations

*At least two different visualizations. Visualizations are clearly visible, clean, well-labeled, and serve a clear purpose for your question(s).*

## Models

*Machine learning models that are chosen wisely, implemented correctly, and give meaningful results. For example, you won't get points if you run a linear regression for a classification problem. If applicable, the results of the models are compared.*

**Feel free to stay after class or post on Ed to form groups!**

# Enrollment

*Let's get this credit*

**Fill out by Friday to get a pin.**
**Also counts for today's attendance!**

# Enrollment

*Let's get this credit*

1

**Fill out by Friday to get a pin.**
**https://forms.gle/azqoKGHpP1N4kFbi9**

**Enroll in Ed Discussion**
**https://edstem.org/us/join/MmMA3D**
**You will be added to CMS over the weekend (after enrollment)**

# Enrollment

*Let's get this credit*

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2

**Enroll in Ed Discussion**
**https://edstem.org/us/join/MmMA3D**
**You will be added to CMS over the weekend**

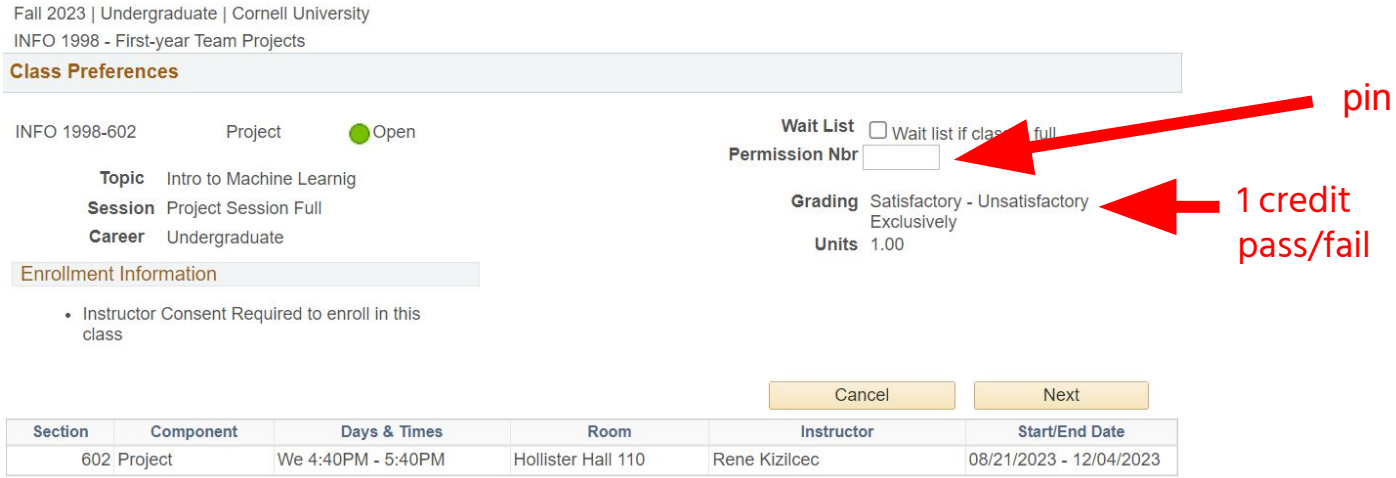
3

**Enroll through Student Center after obtaining pins**

# Enrollment on Student Center

*Let's get this credit*

- Get enrollment pin via email (sometime next week)
- Add INFO 1998 Section 602 (class # ...) under Rene Kizilcec
- Please try to enroll as soon as possible when you receive your pin



# Where can I find course information?

**Asking Questions and Course Announcements:** Ed Discussion (avoid email if possible)

*https://edstem.org/us/join/MmMA3D*

**Assignment File & Submitting Assignments:** CMS

*https://cmsx.cs.cornell.edu/*

**Office Hours Schedule & Assignment Files:** Course Website

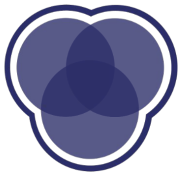
*https://cornelldatascience.github.io/info1998/*

# Jupyter Notebook Demo

*Feel free to follow along in Jupyter Notebook*
*(linked on website)*

# Next Steps

- **Installation**: Seek help at Office Hours!
- **Assignment 1**: Due at 11:59pm on Wednesday, September 24th, 2025 on **CMSx**.
  .ipynb file is on the website!
- **Enroll on Student Center:** Will receive a pin via Cornell email sometime next week
- **Next Lecture**: Data Manipulation



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