

Machine Learning

Fall 2020



Classroom mechanics

Smoother online interactions

Class will be offered via Zoom for the entire semester

Some suggestions to streamline things:

- Use the chat in Zoom to ask questions
- Please mute your microphone if you are not speaking
 - Mostly to avoid audio feedback or other issues
 - Don't forget to unmute (or press the spacebar) if you have to speak though!
- You don't need to keep your video on if you don't want to

Default: Both video and audio are muted

Class participation *strongly* encouraged

Online class ≠ passive listening to a video

Participating in class aids understanding

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- There will be occasional polls in Zoom. Please participate.
- Other ideas? We are open to new suggestions. Feel free to contact us via Canvas

Course Logistics and Information

Basic information

Course website:

<http://svivek.com/teaching/machine-learning>

Discussion forum: Canvas (link on course website)

All of you should have access to Canvas by now

Lectures: via Zoom

Also live streamed on Youtube (with a 15-30 second lag)

Class will be recorded and streamed live

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Canvas for announcements, and managing submissions and grades

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Try to attend the class live rather than watch the video afterwards

Makes sure that you don't miss anything and gives you the chance to clarify things

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People and meetings

- **Lectures:** Tue, Thu 9:10 – 10:30 PM
- **Instructor:** Vivek Srikumar
 - Office: 3126 MEB
 - Office hours: Tue 10:45 AM
- **Teaching assistants**

URLs for all these meetings available on Canvas. *See announcement.*

All office hours via Zoom

Jadie Adams Wed 9:30 AM

Ashim Gupta Mon 1:30 PM

Mattia Medina-Grespan Thu 11:00 AM

Communication with staff

Use the discussion board and Canvas as primary forms of communication

- Except, of course, for confidential/personal stuff
- Email turnaround time may be longer. **Please prefix any emails with the class number!**

Look for announcements on Canvas

How will you learn?

See details on class website

- Pre-requisites
 - Basic probability theory and statistics
 - Linear algebra
 - CS skills to be able to reason about algorithms and implement them
- No required text book, class is self contained
 - Any required material will be made available
 - Lectures will be posted on class website
 - A growing collection of resources (linear algebra, probability) on the website

- Grading

Assignments 65%

Final exam 10%

Project 25%

Grad students will have more work for assignments, and curved separately from undergrads

Homeworks

See details on class website

- 6-7 homeworks in all. Roughly one every two weeks
 - Graduate students may have extra questions
- May involve a programming component
 - Your code must run on the CADE machines
 - We strongly prefer Python (but will allow a small set of other languages)
- **Only** digital submissions on Canvas will be accepted
- **Late policy**
 - Assignments accepted up to 24 hours after deadline with a 10% penalty
 - i.e a 90 will become $90 - 9 = 81$
 - Will not be accepted after that

Projects

See details on class website

- **Goal:** To show (yourself, me and everyone) what you have learned
 - Use ideas you see in the lectures and homeworks, make it interesting both to you and me
- **Competitive project:** Work **individually** on a dataset that we provide, common leaderboard on Kaggle
- Several milestones for projects
 - See class website for more information
 - Important milestone coming up (Sep 12): Project information due

Class policies

See details on class website

- [School of Computing policies](#)
 - This class operates under the school of computing and the college of engineering policies
- [Collaboration and cheating](#)
 - Collaboration is strongly encouraged, cheating will not be tolerated
 - The School of Computing policy on academic misconduct. See link on the website
 - Acknowledge sources and discussions
 - **Your submissions (homeworks, text, code, proofs, etc) should be your own. Group submissions not allowed.**

Class policies

See details on class website

- **Accessibility and accommodation**
 - If you need any assistance, please contact me as soon as possible
 - Will process via the university's Center for Disability and Access
 - <https://disability.utah.edu>
- **Additional policies and information on class website**
 - Safety: <https://safeu.utah.edu>
 - No harassment/discrimination on any basis
 - Wellness and health consultation: <https://wellness.utah.edu>

Who are you?

- Class survey available on Canvas
- You can answer it or any part of it if you want
- **Goal:** To help me design the lectures for you

Announcements

- Quiz 0 should be available on canvas at the end of class
 - Due in one week
 - For you to refresh your memory about prerequisites
- **The class is oversubscribed.** If you are unable to register for the class, please attend the first couple of lectures as if you were registered
 - Several students on the waiting list. As space opens up, I will give out permission codes.
- Please fill up the survey on canvas