

# **NLP Capstone (CSE 481N)**

Spring 2022

Noah Smith

Write down:

1. your name
2. what you're looking for in a team
3. what's the most exciting thing you've learned about related to NLP
4. Project ideas?

# Objectives

- Intensive 10-week experience in successfully completing a challenging, well-scoped research project

This includes honing your technical skills to quickly absorb and adapt new technical knowledge, gaining experience in complex programming, performing thorough experiments and analysis, and learning how to find a path when faced with negative results.

Also:

- technical communication skills
- advisory role to other teams
- project management practice
- (in some cases) benefits to researchers, practitioners, society

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# Project Options

- ❖ **Reproduce** experiments from recently published NLP research.
- ❖ **Design your own.**

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# Structure

- Teams of 3 ( $\pm 1$  possible)
- Grading (everything in blue is shared with your team):

Blog posts (initially with prescribed structure, increasingly less so)	x10		
• #1, #2, #5, #6, #7, #8		4% each	24%
• #3 is the project proposal			9%
• #4 and #9 are individual		4% each	8%
• #10 is the final report (due 5/31)			9%
Five-minute updates (given in lecture; three slides max)	x4	4% each	16%
Final poster presentation (presented 6/2)			14%
Feedback to other teams' blog posts and presentations, within 24 hours			20%

- Meeting time will be a mix of structured and semi-structured activities and time to work with your team and consult instructor and TAs.

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# Important Tools

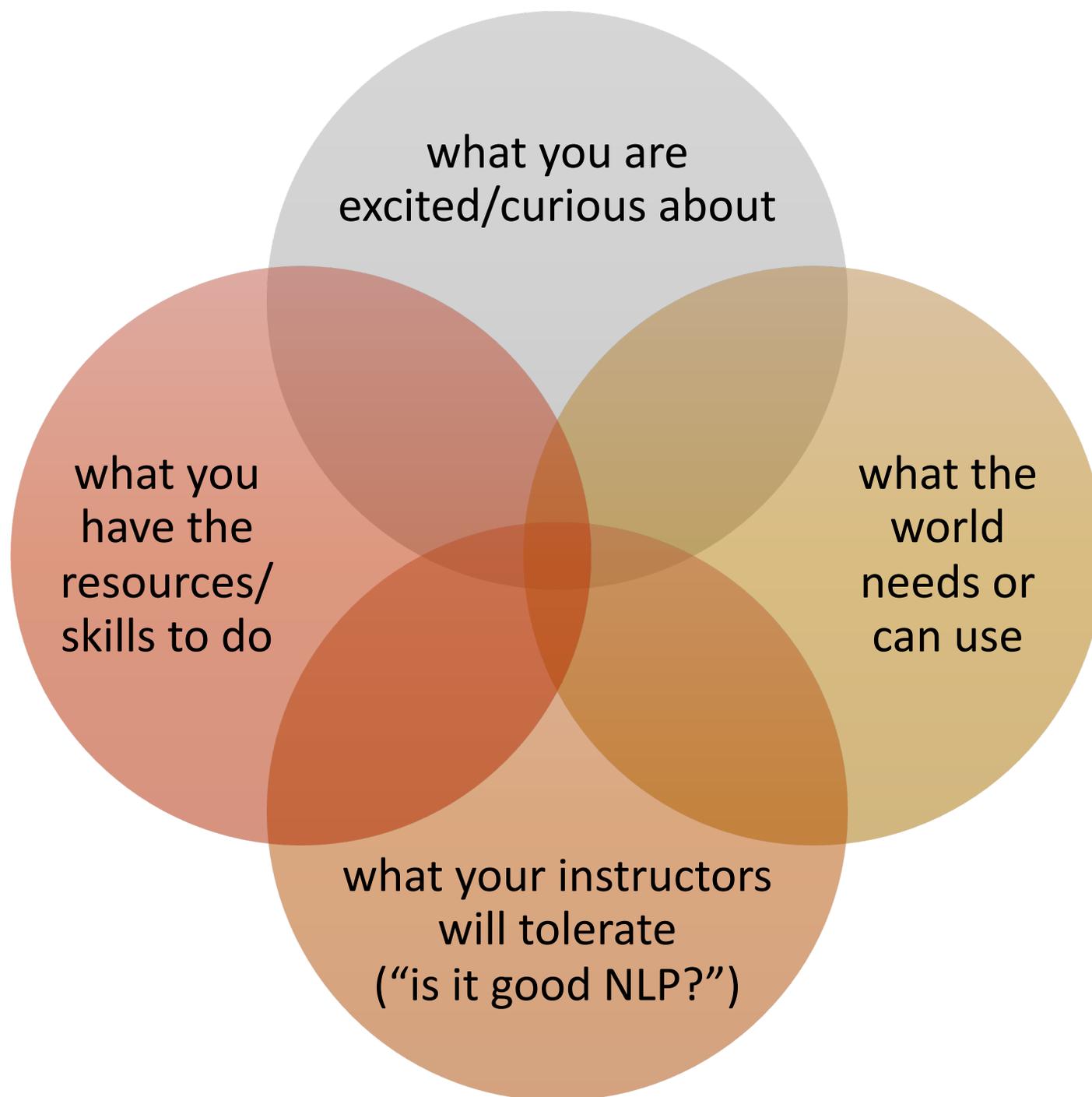
- Ed discussion board
- Templates for final reports
- Google credits
- Course staff plus our networks

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# Step 1: Teams and Projects

- Crafting a good question is often the hardest part of research!
- Getting to a great project requires critical thinking and open-mindedness *at the same time*
- You and your team will succeed (or not) together
- Today: individual introductions, high-level idea discussion
- Thursday 3/31: focus on forming teams and brainstorming
- Tuesday 4/5: **first report is due**

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# Introductions

- Noah
- TAs:
  - Ofir Press
  - Yizhong Wang
- Students

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**Ofir Press**

I'm a fourth year grad student from Israel. I'm mainly interested in making language models more accurate while decreasing their size and memory usage and increasing their speed. I usually do this by investigating a core part of the LM, finding some inefficiency and then figuring out a simple way to fix it.

If you have any ideas for language modeling related projects for this course, feel free to reach out to me on Slack!