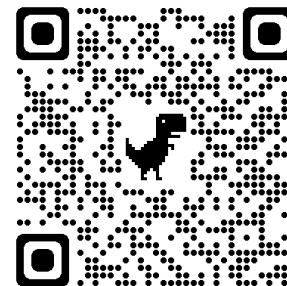# Intro to NLP

COMS 5790 Fall 2025

Outline

- The instructor

- The course

- Natural Language Processing

The instructor

- My name
  - Name can tell a lot
  - Gender, Ethnicity, Age, Religion, …
  - Important feature for many NLP tasks

- My background

- My research
  - Information extraction
  - Generation model

The course

- Assessment
  - Projects: 3 + 1
    - 3 individual projects (10% + 20% + 20%)
    - 1 final group project (30%)
  - Presentation
    - 1 presentation for final group project (20%)
- I need your feedback
  - Office hours:
    - Monday 10:45 am– 11:59 am or by appointment, 102 Atanasoff
    - TA: Wednesday 10:45 am– 11:45 am, Location: TBD

Topics (tentative)

- Pytorch and NLP python libraries
- Word representations and phrase mining
- Sentence representations and parsers
- Document representations and topic modeling
- Information extraction and retrieval
- LLM and multimodal NLP
- Summarization and machine translation
- Dialog system and conversational interaction
- Language Resources and Evaluation

Course policy

- no late submission will be accepted.
  - You can request a deadline extension, but such requests must be submitted at least 24 hours before the deadline to be considered.
- AI Tool Policy
  - Yes with disclose
  - You must ensure that your work remains original and does not violate plagiarism guidelines
  - You must ensure the citations are proper

Natural Language Processing

- https://www.youtube.com/watch?v=d2UccTPnl4w
- We will focus on text in our course. No speech

- Do you use AI chatbot, ChatGPT, MetaAI, Copilot…?
- Do you use AI voice assistant, Alexa, google assistant, Siri…?
- What's your experience using them?

What to expect from the course

- NLP is so rapidly evolving so papers and online materials will be the main source of knowledge

- Letting you know something about a lot of topics in NLP

- Some hands-on projects to practice