AI and algorithmic decision making for social good

Final projects overview

Lily Xu | ORCS E8100 | Spring 2026 | Columbia University

Reminder on course evaluation

- In-class paper presentations (30%)

- Project (45%)

- Participation (20%)

- Paper responses (5%)

Project timeline (45%)

- Project proposal (Monday, March 9)

- Project pitch presentation (Wednesday, March 11)

- Check-in (April 6 and 13 during OH)

- Final presentations (April 29 and May 4)

- Project writeup (Monday, May 11)

Project goal

- Goal would to have the work be a workshop paper that could be submitted to an ML (or similar) conference.

- Default expectation is projects would be in **pairs**.

  - Especially for PhD students, I support having your projects be aligned with your research. If working individually would help support this, let me know.

  - I am *open* to considering other individual projects on a case-by-case basis.

Project proposal (due March 9)

- **Motivation:** What is the problem considered? Why is it important? Who are the impacted stakeholders? Put the problem in context (stats, articles/bkgd readings).

- **Proposed approach:** What do you plan to do? What is your problem formulation? What solution approaches are you considering? Have you identified data, or do you have plans for building a simulator?

- **Lit review:** What are related existing approaches?
  Please prioritize relevant technical papers in ML/OR/stats/etc conferences or journals.

- **Connection:** In what ways does this work connect to our readings and discussions?

- **Potential barriers:** What barriers do you anticipate might arise?

2–3 page document due 10pm on March 9 on CourseWorks
Note: Class is canceled March 9, so you'll have extra time to wrap up your proposal :)

Project pitches (March 11)

- ~8 minute presentation in-class on March 11

- Address the key requirements from the project proposal

- **Being concise, presenting clearly, and appropriately managing your time will be part of the evaluation!**

- The audience will be tasked with being constructive reviewers

Check-in

- 15–20 minute appointments during office hours per project

  - 15 for individual projects; 20 for partnered projects

- Early April (targeting **April 6 and 13** — sign-ups to come)

Final presentations

- In-class during the final two class periods (April 29 & May 4)

- 15–20 minute presentations each

- The audience will be tasked with being constructive reviewers

Final project writeup

- Due Monday, May 11 at 10pm*

- Should be modeled as a workshop paper

- Approx. 6–8 pages including figures; not including references

- More details will be shared about the exact format and structure

* Please contact me **in advance**—before April 13—if your exam schedule makes this date difficult, and I'd be happy to accommodate.

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All deadlines 10pm ET unless otherwise mentioned!

Evaluation

- **Motivation:** Problem selection and motivation (is it interesting? important? well-connected to the course?)

- **Approach:** Technical depth and correctness

  - Ambition relative to what was achieved (negative results from a well-executed approach can be perfectly acceptable)

  - Expectations will be calibrated based on your level!

- **Rigor:** Quality of evaluation or analysis

- **Communication:** Writing clarity and presentation quality

- **Connection:** Meaningful engagement with course readings and discussions