1 Final Project Proposal

One of the main goals of CS 334 is to prepare you to apply machine learning algorithms to real-world tasks, or to leave you well-qualified to start machine learning or AI research. This final project is intended to progress you toward these goals. The final project for this class is completely open-ended. You can pick just about any topic you wish so long as there is some direct connection to machine learning and its mathematical foundations.

2 Pick a Topic

Pick an application that interests you and explore how best to apply learning algorithms to solve it.

Topic ideas:

- Select an algorithm from the second half of this semester, or one not covered in class. Implement it from scratch, list its potential applications, apply it to a dataset, and compare and contrast it to other ML algorithms. This is a deep dive so you become an expert in your selected algorithm.

- Build or apply a machine learning program tailored to a particular application coming from some other field such as natural language processing, bioinformatics or information retrieval. Perhaps you have an application at your place of work.

- Build and host a model in an API, and make it public. Use something like AWS SageMaker, or cloud model hosting service.

- Something else? Pick something you can be passionate about. Be creative!

3 Write a Proposal

Write a one-page proposal outlining exactly what you intend to do. Include a topic title, list of checkpoints you will follow to achieve your objectives, criteria for a successful completion, and stretch goals.

4 Deliverables

Complete the tasks above, and send an email with your proposal to conradkennington@boisestate.edu by the due date.