Final Project Proposal

Submission

Please upload a PDF to Gradescope by **11:59pm Wednesday, December 2**.

Finalize the Problem and Objective

This proposal completes the *decide* layer before execution begins. Present one project idea. It may be a refined version of Proposal 1 or a completely different idea. Changing direction carries no penalty.

Your project may apply and compare several algorithms on a task, or it may develop a new algorithm or modification. The dataset and setting are yours to choose. What matters is the connection between the problem, the objective criterion, the algorithms, and the evaluation.

What to Submit

Describe:

- **Problem:** State the task precisely. Identify the input, desired output or behavior, and any important constraint.
- **Success criterion:** Give the primary objective quantity you will measure. State what result would count as an improvement and which baseline or comparison gives that number meaning.
- **Dataset and setting:** Identify the dataset or type of data and explain why it fits the problem. You do not need to download or analyze it for this proposal.
- **Algorithms:** Describe the baseline and the main algorithm or algorithms you plan to test. If you propose a new algorithm, explain how it differs from the nearest existing approach and why that change could improve the objective.
- **Evaluation:** Explain how you will compare the algorithms fairly and which checks could reveal overfitting, a misleading metric, or another failure.
- **Delivery:** Name the results and visualizations that would best show whether the objective was met.