Snow day:
Three attempts at Tetris

15-113 – Monday 1/26

Quick stuff

- Welcome to my apartment. Stay warm, stay cozy. Office hours will also be remote today (see Ed for more details). Please keep your cameras on if possible.
- Congrats on finishing Project 1! We'll share info today on how to sign up for a presentation group
- This week's HW will involve making a functional game in Python. Details will be released tonight or tomorrow depending on how today's lecture goes
- Find anything interesting and AI-related? Any tips discovered while making your website? Please share on Ed!

Today's plan

- We'll attempt to create Tetris from scratch, several times, and each time we'll see how far we can get in 15 minutes.

- We won't easily be able to break off into groups over zoom, so chime in if you have questions, observations, or suggestions.

- Pay close attention so that you can replicate (and perhaps improve) any effective strategies on this week's HW!

Three approaches for today

- Simple prompt: "Make Tetris in Python with cmu_graphics."
- Plan, Adjust, Execute: "Create a detailed plan for writing Tetris in Python with cmu_graphics", we adjust the plan, AI executes the plan (also known as Plan-and-Solve)
- Detailed prompt with a full list of desired features and tests.

Which approach do you think will work best?

- Fill this out to let us know! https://bit.ly/4qGQLFe

Results

- Simple prompt: Well damn. With Sonnet 4.5, we reached working tetris in about 2:45 with reasonable checks for correctness.
- Plan Adjust Execute: Took 7 minutes, slightly more fully featured, but slower to get to a basic working state.
- (Semi)detailed prompt: Took almost 15, with one bug correction

- Note from office hours: Try Tetris + cmu_graphics with standard chatGPT! I think we didn't give Claude enough of a challenge, but chatGPT will demonstrate considerably more varied behavior on this task.