Scaling up active learning activities via LLMs in an intermediate statistics class

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Introduction

- 2016 GAISE report:
 - Teach statistics as an investigative process of problem-solving and decision-making.
 - Foster active learning.
 - Use technology to explore concepts and analyze data.

Pedagogical Motivation

- Many concepts in statistics are visual (although backed up by math)
- More students doing statistics (math foundations?)

Instructor Constraints

- Statisticians come from a wide range of backgrounds!
- ullet Open source apps o (no) one size fits all
- Time taken to learn how to create apps
- Small classes versus large classes

Large Language Models

- ChatGPT4 released on March 14th 2023
- Able to code, solve high school math problems, analyze data, answer questions, etc
- Used by students

Conclusion

- Using LLMs can cut down on time needed to write own activities
- Allows instructors to design activities that incorporates own style and course objectives