



UNIVERSITY OF
COPENHAGEN

How to properly use AI

Computational Statistics

Jinyang Liu

Department of Mathematical Sciences, University of Copenhagen

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The best model, from my own testing, is **GPT-5 Thinking**:

- It can infer the mathematics from reading the code
- It can provide novel mathematical insights that improve the efficiency of the code
- Hallucinations still occur, albeit much less frequently than previous models

Tools that I use

- Cursor (VS Code) + ChatGPT Plus for coding
- DeepSeek is also a great alternative for information gathering

Free for students: [GitHub Copilot](#) (VS Code)

What to ask AI?

“Can you write a unit test for this function?”

Unit tests are an easy way to verify the correctness of the code. AI is often much better at writing unit tests, than coming up with solutions.

“Can you add print statements to the code to check the intermediate results?”

It can be hard for less intelligent models to see where the code is failing. Adding print statements helps guide the model to the correct solution.

“Can you break this code into smaller functions?”

Using AI to refactor your code is a great way to improve the readability and maintainability of the code.

“I have this problem, can you come up with some testable hypotheses to narrow down the cause of the problem?”

Asking the AI directly to come up with a solution directly usually results in hallucinations. Instead, try asking it to think of tests, so that you don't waste time on the wrong solution.

- Don't ask AI to solve the problem directly, while it can do that, you probably won't learn anything.
- Ask AI to help you brainstorm ideas and draw insights.