Arianna Sanchez Narita (#40285750)

Dr Gabriel Vigilensoni

Generative Artificial Intelligence

Thursday February 12th, 2026

A03: The Worst Mathematician Ever!

Starting this project, I quickly realized that getting an AI bot to fail at basic math is actually harder than it sounds. The GPT models are usually very good at multiplication, so asking it to solve the math wasn't the issue. However, I was aiming for a both that tired to do math and messes up repeatedly while slowly losing confidence along the way. But, it eventually gets the right answer and tries solving the next problem.

To get the bot to fail, the code has it so that there is almost a guaranteed fail. Although OpenAi is used to make an answer at every step/iteration the program purposely puts incorrect answers. It's funny because it makes the AI have unreliable reasoning. If the bot gets the answer wrong or doesn't "trust" it, it tries again, fails and emotionally spirals before getting it right. Basically, the bot is less of a calculator but more a stressed-out guesser under pressure.

I also experimented with the temperature and top_p values to make sure the model wasn't following its "usual" behaviour. For instance, increasing randomness and limiting the probability space to ensure mistakes over time on each iteration. While trying to do this it was amusing prompting ChatGPT to help me out because it kept making the bot always be correct for each math equation.

Finally, the personality of the bot is also an added fun element to this project. I used keyboard emoticons like (≧◡≦), (⊙_⊙;), and (ಥ﹏ಥ) to visually represent its emotional state. As the bot keeps failing the reactions become more confused or sad. However, when it gets the

answer right it briefly celebrates and then fails again. This aspect gives a humanoid feature to it and adds on to the humorous aspect of the project. The emoticons are also followed with funny sentences to express the bot's feelings. In the end this bot reminds us why plain calculators still exist and that AI models still can't be fully used for math quite yet because it's so easy to code them wrongly.