Problem 1. Fill out the *About the Author* section in your *Course Manuscript*. Include a headshot, and your educational background, mathematical interests, career plans/goals, and any other details that you want, e.g., hobbies, hometown, etc.

Solution. Copy/paste the contents of your *About the Author* here, including the headshot, and then remove this sentence.

Problem 2. When used responsibly, AI can be a very effective coach. When used irresponsibly, it can be a crutch, and detrimental to the essential learning outcomes of the course. In this class, you be be strongly encouraged to use AI responsibly. Based on your past experience and knowledge, which AI tools do you expect to use in the class, and for which tasks?

Problem 3. Read through *Tips for typesetting mathematics in LATEX*, which is posted on the course webpage. Then, skim through the two Math 3190 manuscripts written by other Math 3190 instructors. Write a few sentence of general feedback, both good and bad. What are your favorite thing(s) about each manuscript? What are your least favorite? What suggestions would you make to the authors about their writing, formatting, or typesetting?

Problem 4. For each of the following statements, rewrite it below with your preferred choice of phrasing. Then, see what ChatGPT recommends. Does anything surprise you?

(a) Let X be a vector space and __ $Y \subseteq X$ __ a subspace. ($\varnothing\ldots be$ / $let\ldots be$ / $\varnothing\ldots\varnothing$)

(b) Assume that X is a vector space, and __ $Y \subseteq X$ __ a subspace. ($\varnothing\ldots is$ / $that\ldots is$ / $\varnothing\ldots\varnothing$)

(c) A matrix is upper triangular if all __ entries below the diagonal are zero. ($\varnothing$ / the / of the)

(d) A linear map $f \colon X \to U$ injective if __ is trivial. (*its kernel* / *the kernel* / $\ker(f)$)

(e) For __ vector(s) $x \subseteq X$, there exists __ $c \in \mathbb{R}$ such that... (*each* / *every* / *all*...*some* (scalar?) / *a* (scalar?) / $\varnothing$)

(f) Choose $x \in X$ __ $|x| = 1$. (*such that* / *with* / *satisfying* / *for which*)