## PS1 Herrera

February 2021

## 1 Interest in economics and data science

I am interested in economics and data science, and specifically this course as way to prepare myself for graduate school in economics or public policy. I wanted to take this class because I've heard and even read some papers in machine learning and I do not entirely or even superficially understand it. I am also interested in this class to improve my data management and work flow practices. I would like to gain some confidence in my abilities as a researcher. Even if I'm not asking great questions I would like to be able to work through projects a little faster and start learning how to ask better questions.

For my research project I am interested in apply the methods of regression discontinuity to understand the role of school district lines in high school student outcomes. I am not sure how digestible this project is for a semester. I am also interested in new single family construction in the low to moderate price point. From a non data observation, I don't see a lot of construction at this price point, and that the majority of available tends to be older, and thus likely more expensive to live in. I am not entirely sure what the research question here is. First I do not know if there is actually a need here, but if there is I would be interested to learn what is preventing construction. If I'm able to get some good research done this semester, I hope to continue the project in graduate school. Right now I've only heard from an economics program.

## 2 Equation

$$a^2 + b^2 = c^2$$