## ECON 5253 PS1

Lilly Kirby-Rivera

January 25, 2024

## 1 Interests

My interests in economics are primarily in industrial organization with a focus on health economics. In particular, I am focusing my research on pricing and entry deterrence in the pharmaceutical industry. Last semester, I attempted to use a large panel dataset (the Medical Expenditure Panel Survey) to explore determinants of price and entry response for my IO term paper, but unfortunately, the data was insufficient for more meaningful analysis. My inefficiencies and shortcomings in this heavily data reliant project are what motivated me to take this class.

My goal for this class, and understanding data science in general, is to find a more efficient way to combine multiple sources of data and have a better grasp of viability for research questions given available data. Additionally, I would like to learn more efficient methods of data scraping so that I do not have to rely on existing datasets. The overall takeaway I would like from this class is the ability to work with large datasets and keep a clean code/work history that is easy for others to interpret.

A project that I am just starting to work on is related to pharmaceutical entry deterrence using the Medicare Part D dataset. The idea is to compare actual quantities of pharmaceuticals sold to the number drug companies report producing to determine if there is an overstatement of production to deterent entrance. If possible, this could be a term paper project for this course.

My plan after graduation is ideally to work a private sector job where I develop structural models of supply and demand, which is part of why I am interested in IO. I plan on applying for academic jobs as well, which I would also be happy with since I enjoy teaching and working on research projects with other professors.

## 2 Equation

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