Problem Set 1

Ruichun Liu

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1 Question 5

As a second-year Ph.D. student in Economics, I am keenly aware that I have a great passion for research. Researching in Economics also means dealing with many big datasets and collaborating with coauthors. This course, Data Science for Economists, becomes my best choice for developing my programming skills and improving my research. This course covers good programming practices. Many productivity software, such as SSH Client, Git, R, Julia, Python, and SQL, are taught in this class. Also, Github can help me effectively work with others.

I have three goals for this course. Firstly, I would like to be familiar with the basic software covered in this course so that I can get a general idea about the most technical part of Data Science. Secondly, I want to dive deeper into the three software, including R, Python, and SQL. It is hard to be an expert in an area in a short semester, but it is better to practice and gain more experience. Besides, I would like to use the skills learned in this class to finish my project. Learning by doing is an imperative process for research.

I have always been interested in the effects of education on social development. I find a research idea that whether the difference of tuition for in-state and out-of-state students induces students to make a different choice according to their budget constraints. The benefit of low tuition for in-state students may attract more students with high academic performance but low budget constraints. Even though they have better choices, like Stanford or Harvard, they still prefer to stay at the university in their states. In this situation, the local state can keep more talented people in their state and it is beneficial for the development of these states.

After my graduation, I would like to pursue an academic position since I have a dream of being a professor that allows me to push forward the boundaries of knowledge, and to share ideas with students and academic professionals. I believe this course would help me develop a strong foundation for future research and help me achieve my dream of being a Professor.

2 Equation

$$a^2 + b^2 = c^2 \tag{1}$$