

Problem Set 1

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1 Interest in Economics and Data Science

I initially was interested in economics in high school when I took AP Macro. Since then, I've come to really enjoy microeconomics more. Initially I was considering pursuing a degree in statistics, but since OU didn't have a stats department I decided to double major in economics and math. I find behavioral, urban, labor, health, and education economics interesting. I also enjoyed taking Game Theory. I did my Honors Research with Dr. Nedelescu last semester looking at two-sided markets and trying to derive equations to find the optimal price and location of firms in both price and location were variables. I found that to be very interesting and am continuing my research this semester with him for my Grad Research.

I am interested in data science because I understand how valuable of a skill it is. Last year, I took two statistics classes with Dr. Stewart in the math department that utilized R. I find that coding is not something that comes naturally to me and so I am challenging myself in order to be better rounded and marketable. Overall, I think data science is a really cool space, but acknowledge that there will be people in the workplace that are far better at coding. So, I am not trying to compete with them by any means, but simply have a good enough understanding to be able to hold my own and be able to answer some of my own questions in the future- that's what made me want to take this class.

After graduation I am going to be working as a Business Analyst for Capital One. My goals for this class is to be better equipped to navigate coding in a variety of spaces. I know that most of the work Business Analysts do at Capital One is using SQL and if needed Python, but that I could use R if I were more comfortable with it I believe. Their Plano, TX office houses all of their Auto Finance, so I'd be interested in doing something related to that for my final project. I'm thinking either: how banks work with car dealerships, getting approved for a car loan online/ buying a car fully online, approval rates/ car loans, or something else about the car market. Alternatively, I could do something relating to credit cards or the housing market. I am open to other ideas obviously, but those are the main ones I am considering since I will likely be working in credit or refinancing sectors.

2 Equation

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