Andrew Plum

Econ 453

8/23/2023

In-Class Assignment #1

Part 1:

My preferred name is Andrew. Currently my majors are computer science, economics, and philosophy. I think I want to work with artificial intelligence after I graduate or some other field that utilizes all or most of the skills and interests I have. I am taking this class because I enjoy learning about economics, and it seems like a useful class to take; occasionally I find myself enjoying economics a lot more than computer science although computer science is still very rewarding as well as quite useful at times. I am also taking this class for credit. I am interested in learning about econometrics because I don’t think I have ever really learned anything concerning it so it should all be new to me. I am hoping this semester goes well. Most of my classes are project based so it might be tough to stay motivated. The biggest concern I have about the course is the semester project, since I haven’t done anything like in any of my computer science classes. I also might be a bit rusty when it comes to statistics so this should be fun. I took an intro to data science class recently, but that mostly focused on learning python for statistical analysis and data visualization, and not necessarily complex statistical concepts. I do have some questions about semester project:

1. If you had to guess/estimate how much time do you think each student spends on their project on average over the semester (I want to plan accordingly)? Can it also be completed at our own pace quick into the semester or is it something that is structurally set up to take all semester? I would prefer to try and frontload the work and complete it early in the semester if possible.
2. I have not written a lengthy technical paper before. Do you have any good example papers?
3. I think I talked to you about this in the past, but is the potential to expand on the project we do here into the project that’s done in the capstone class?

Part 2:

I am still developing ideas but here are two:

1. For the first topic, I am considering choosing something with existing data sets. I know this isn’t the most original idea, but I was thinking I could examine what variables make a company’s stock price go up or down over the long term. Various factors that I could look at in relation to the stock price could be specific to the company or to the overall economic environment. The variables I could look at could be labor market data collected either from an industry or specific companies which would include things like most prevalent job positions and job openings, total employees, most prevalent skills asked for, most prevalent degrees of workers employed; the degree of the company’s executives; the company’s location; political composition of the state or country the company is located in; population of the company’s location, government subsidies the industry or companies receive; amount of taxes levied by the company’s government; state versus federal legalization for things like marijuana and gambling (could compare US listed companies and international companies – Canada might be a good comparison here); data from the Federal Reserve like bond prices and yields, federal funds rate, real wages, inflation; consumer sentiment surveys; fiscal spending; and words used to describe the profile of the company. I have some ideas of how I can go about obtaining some of this data. For the labor market data, I know professor who has data from the labor market company Lightcast, and I could ask him for the data or reach out to the company directly. FRED has an API that I could use to grab useful macroeconomic data. The US census also has some data I listed. To obtain data on stocks and their prices there are various free stock market data API’s that I could use. I don’t know if I should use stocks of specific companies, stock indexes, prices of ETFs. I’m still thinking of other datasets I could use. This might be a good topic for me because it ties in things I like, and I could demonstrate skills I have through it which could be useful in the future for things like mentioning it on a resume.
2. Another less developed idea that I have as a potential project topic is I could examine what drives turnout in particular public events. I would have to choose what kind of public event to focus on, but some that I think I could be interesting are election turnout, sports ticket sales, movie ticket sales, lottery ticket sales, etc. For the election one I could look at variables like what are the top issues of the election or who are the figureheads of the political parties. For sports games, I could look at the time of year of when they are held, the weather, the teams playing, or specific players playing in the game. For the movie theater one, I could look at what actors are showcased, who the director is, what company financed the movie, the time of year when released, etc. I think there are databases that you can access for free with election specific data collected by political polling companies. I also think sports ticket sales and related data might be publicly available; I know movie ticket sales are.

If you have any suggestions or if they don’t sound like good topics or you have any better topic ideas you think I may like, please tell me.