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Adventures in Economics
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My venture to Uber Headquarters San Francisco was successful and eye-opening. I was able to discuss economic theory with seasoned economists, explore data science in private industry, and catalyze connections with benefit to the future of both me and my startup.

I met with 8 different employees of Uber, who held roles in data science, economic research, and finance. I now am in touch with most of them to extend the conversation further, or to utilize the connections they offered me. An interesting note is that they also advised me to apply for an internship for the coming summer, and many of them offered to advocate for me to the hiring team.

The trip began with a visit to my ECON 510 office hours. I was there for two and a half hours, during which Dr Woodward and I discussed my startup, Wage Technologies, as well as the nuances of auction theory. Following our lengthy discussion, he reached out to his friend from UCLA, Dr Tiago Caruso. He advised me to meet him in San Francisco, the funding for which I achieved through the Adventures in Economics application.

There were two main objectives for my trip to San Francisco: to research the theory behind a student-led startup with seasoned economic researchers; and to examine opportunities in economics in the private sector.

An important note is the relevance that my startup has to Uber's models, and to Tiago's work both within and outside of Uber. I am building Wage Technologies with six other college students. Wage is a scheduling software that utilizes auction mechanic

Tiago and I communicated extensively before my trip to San Francisco. After lengthy discussions about my startup and the work he does for Uber, he gave me a list of people with whom to meet while I was there. This is the list he provided:

- 11 am: Tiago - Sr Data Scientist Business Econ; receive you in the reception; 40 min chat; 20 min lunch with the team
- 12:00: Alison - Data Scientist Policy Econ (room Los Angeles 4th floor)
- 12:30: Calum - Data Scientist Business Econ (room Baltimore 4th floor)
- 13:00: Jason - Sr. Data Scientist Business Econ (zoom meeting) (room Amsterdam 4th floor)
- 13:30: Dan - Manager of Business Econ team (room Baltimore 4th floor)
- 14:00: Lindsey - Data Scientist Policy Econ (room Omaha 4th floor)
- 14:30: Claire - Data Scientist Legal Econ (room Baltimore 4th floor)
- 15:00: Libby Manager of Policy Econ team (room Memphis 4th floor)
- 15:30: Tiago walkout

I flew to San Francisco on Wednesday night, did preparations for the meeting on Thursday and met with some marketing agents in the area, and then spent Friday at Uber before flying out Saturday.

I walked into Uber Headquarters and met with Tiago. We chatted for about 45 minutes about his life at Uber, his advice for me in the startup world, and auction logistics. He introduced me to the his coworkers with whom I was not scheduled to meet, then he brought me to lunch, which Uber serves in-house. He explained Uber's mechanics of keeping their employees in the building whenever the company is able, simply because employees waste much time exploring

the city with coworkers or commuting to and from the eatery of their choice. Resultantly, breakfast, lunch, and dinner are served every day at Uber, for free.

My next event was a meeting with Alison, a recent Harvard graduate and current data scientist. Our meeting was mostly about the structure and processes of Uber. We discussed the current lawsuits against the company, most of which entail the assertion that Uber functions as an employer, rather than as a market. She explained that Uber functions simply as a “market mechanic” intended to simply facilitate the connections between the drivers, who become independent contractors instead of employees, and the riders. But Uber is being sued, the lawsuits relating to which declare that Uber is actually an employer and ought allot the drivers benefits, like healthcare, childcare, overtime pay, and more. This would be a dramatic shift to the Uber business model and has been a major component of most of Uber Headquarters’ work in the past months. Uber is now considering building an employee scheduling software to use for drivers, which allows the drivers to receive more money if they pick up harder shifts. This is effectively Wage. She said she would like to continue the conversation in case they consider a partnership in the future.

My next meeting was with Calum You, a young data scientist at Uber who graduated from Stanford in May 2018. He had little to add conceptually, but he did send me a few interesting articles on Uber and their independent research. (My favorite is https://www.oxfordmartin.ox.ac.uk/downloads/academic/201809_Frey_Berger_UBER.pdf.) He mentioned to reach out to him if I ever consider a career at Uber, and he gave advice on the industry of data analytics, particularly for young people who prefer to avoid the average desk job.

After talking to Calum I met with Jason via a Zoom call, where the entire meeting was about auction models and their implications. We discussed incentive systems and how to reward workers while also sustaining ethics. A clear example of this is in the structure of both Wage and Uber. When an employee works a hard shift, our team contends that the only reward should be monetary; the employee should not receive priority later on in the shift allocation process, since our target user market has tough schedules and the busy people should always be able to work when they have availability. Jason contended otherwise, and thought the reward for working a tough, not-in-demand shift now should be that that employee gets priority when shifts are assigned next time. However, this differs from our model, which asserts that those with low availability should still be able to work.

Dan was next. He provided perhaps the most beneficial information: data on auction models, information on auction failure, and advice on machine learning implementation. He advised that auctions fail when there are few participants, and he stressed that we use machine learning in optimizing the rates at which auctions implement price increases dependent upon how many users are active in the app. He also was blunt in saying that this was probably going to fail; not because it is a bad idea (he conceded it was not), but that we are young and are going to mess this up. He advised us to be open to failure, and that we should embrace mistakes with open arms, with the sheer goal of making that mistake our last.

Dan also talked to me about the split shift rule that California has, and he intended to discuss how it affected Wage, but he didn't have enough time. The split shift rule states that if an employee works two shifts in the same day that aren't back-to-back, the employee needs to be paid on-average minimum wage from the time she begins working the first time to the time that

she stops working the final shift. Our algorithms, then, must take this into account when assigning shifts, so as to save employers money in California.

I met with Lindsey afterward. We talked about the option of working in San Francisco for an extended period of time, and gave links to a few Freakonomics episodes which discussed living in such a fast-paced place at such a young age. She also put me in touch with economist Richard Thaler at the University of Chicago, under whom she did research in college.

My meeting with Claire was very interesting. She put me in touch with her former employer, an auction implementation company in Chicago, which predominantly does physical auctions but often does web-based implementations, as would be used in Wage. She discussed its utility for our application and said that it would be a good idea to talk to them. Claire and I are still in touch about auction mechanics, and she advised me to apply for an internship in the coming summer.

My final meeting was with Libby. After a long day of meetings for me, and of work for her, we treated this 30-minute block as a cooldown. We talked activities in the area, how she stays active at work, and about her sentiment against standing desks. She referred me to literature on the school lottery system, and how the methodology of student assignment to schools could be similar to how employees are assigned to shifts.

Tiago then walked me out of the facilities, with a firm handshake and friendly smile. I went home that night and prepared for my early flight the next morning.

The meetings were informational, enjoyable, and unforgettable. The experience I had at Uber was unparalleled. At minimum, the trip was enlightening for me and my startup; at maximum, it was a life-changing experience that I hope to utilize to inform my future, and to develop my research. I would be happy to speak more on the trip if it could be of benefit.