

UWaterloo Economics PhD Program: Student Point of View – Zehua Pan

1. Why did you choose to pursue graduate studies at the University of Waterloo?
 - a. *I had my undergrad finished in the States. During the grad school application season, I knew that I wanted to have a career in Canada, and what would be greater than a program with co-op? Many of my friends recommended UWaterloo for me during that time as well. These are the major reasons make me want to start a grad-venture in Waterloo.*

2. Why did you want to do your PhD in Economics?
 - a. *I love the concept of Economics. When I was an undergrad, I majored in Math and took a bunch of Economic classes for my minor. The senior-level math classes are composed of complex analysis and abstract algebra, which are not classes that I enjoy the most. To be fair, I didn't want to spend five more years studying it even further. Simultaneously, I was taking an Economics class about war and terrorism. I loved the Economic models we constructed to understand the complex issues. And most importantly, we could rationalize everyone's behaviour, including warlords and terrorists. This concept made me want to study Economics on a deeper level.*

I made my decision about the PhD during my first year of grad school. I felt that the first year of Economics classes was just the start of everything. Therefore, learning four more years would be more interesting than starting a career instantly. That is why I decide to pursue a PhD here.

3. Why/how does the Economics PhD program offer a unique learning perspective for graduate students?
 - a. *We have a small department. That means you can seek help from all of the professors. You can either have a serious academic discussion or just a casual chat with them. This friendly environment makes the overall academic journey more enjoyable.*

4. What was your favourite part of the Economics PhD experience?
 - a. *Conferences, for sure. I love presenting new ideas and papers in front of colleagues. Most importantly, international conferences can bring all of the talent in your field together. People who share the same background can inspire more amazing ideas working together. Finding good audiences is the most fantastic part of academic life. Well, travel is great by all means.*

5. What was your favourite course and why?
 - a. *I loved ECON 625, Numerical Methods for Economists taught by Pierre Chausse. This class is a great one to enhance your R skills. Mikko Packalen's ECON 626, Machine Learning for Economists, is a great class as well. It can help grad students with limited ML exposure to understand the currently popular*

methods. It is not that coding intense compared with other Machine Learning classes from Stats or Engineering. I would also nominate the Water Economics class taught by Roy Brouwer. Interesting topic class.

6. Was there a professor that inspired you within the Department of Economics? If so, then who? What made them inspiring?
 - a. *My supervisor, Roy Brouwer. I admire his research passion. He loves the research he is doing, and this also influences his colleagues and grad students within the group. We tend to lose our research passion after years of studying. It is exciting to work with supervisors that really love the field and subject.*

7. What did you take away from this PhD program?
 - a. *I enjoy the process of research. It is a time-consuming process. We tend to feel frustrated as our progress merely changes. However, that is the most amazing part of the PhD. We are allowed to make mistakes and correct them. After many years, I will still remember the miserable moments I used to have doing research for the past five years.*

8. What kind of research did you work on in this program that was especially compelling?
 - a. *We examined the correlation between drinking water adverse events and forest land covers. This relationship has not been examined by social scientists before. We provided an interesting scope to look at this case for Ontario. We found out that there is a negative correlation between forest land cover and the amount of adverse drinking water events in our municipalities; more forest land covers are correlated with fewer adverse water events.*

9. What are your plans for the future?
 - a. *I love working with data. Most importantly, finding stories behind data. Data scientist is still the most exciting job for me right now.*