

HONGYU ZHENG

PH.D. CANDIDATE | CIVIL & ENVIRONMENTAL ENGINEERING

transportation systems analysis & planning



1. Where are you from?

I am from Shenyang, a city located in northeastern China that has very similar weather to Chicago.

2. Where did you get your undergrad degree from and what was your major? Do you have a MS?

I got my B.Eng. degree in Civil Engineering from Zhejiang University and received an M.S. in Transportation from the same university.

3. What attracted you to engineering?

I have always known that I wanted to be an engineer ever since I was a little boy. Right now, what continues to draw me into the world of engineering is its real-world applications. The potential of implementing my professional knowledge into concrete, tangible solutions is exciting to me.

4. What attracted you to pursue a Ph.D. in your specialty area?

I enjoy the research process: discovering a problem, building on previous work, and forming my own model for a solution. I find myself being focused and enthusiastic whenever I am immersed in this process. In addition, I enjoy the study and work environment of a university, where brilliant minds meet and collide to create advanced and cutting-edge solutions.

5. How do you explain your thesis research to a non-scientist?

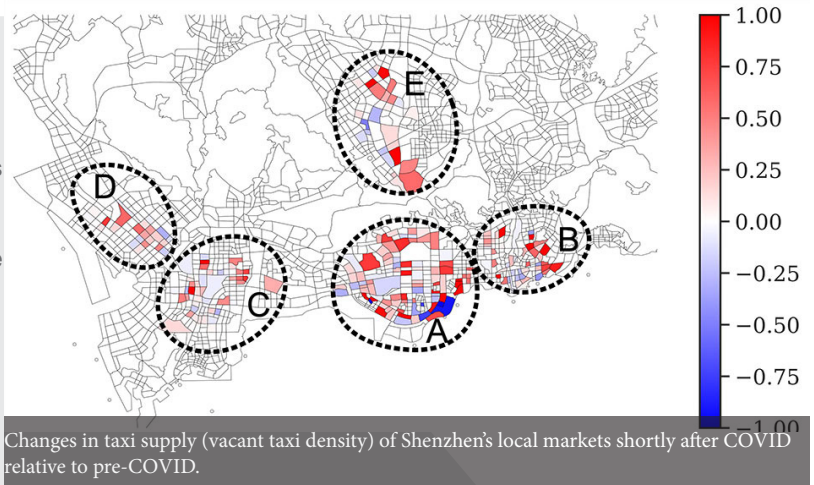
My thesis is centered around the concept of shared mobility, which refers to transportation services and resources that can be shared among travelers. In recent years, companies like Uber, Lyft, and Divvy are drawing lots of attention to this concept as they rise and grow at rapid speeds. Such transportation systems typically have complex interactions with multiple stakeholders, e.g., travelers, existing travel systems, and regulatory authorities. Based on transportation economics and optimization knowledge, I model various new transportation systems to better understand and predict the system's status and to further develop new strategies to improve their performances.

6. What attracted you to NU?

First of all, NU has one of the best transportation Ph.D. programs worldwide. The faculty members here are super supportive and there is an abundance of resources from academia and industry for graduate students interested in this field.

Equally important is that my advisor, Prof. Yu (Marco) Nie, is one of the leading researchers in transportation systems analysis. Not only does his research focus match my interest, but more importantly, he is a dedicated professor who really knows how to help his students grow.

Finally, Evanston is a lovely place to live in. Being so close to a metropolis that is Chicago and yet also preserving a college town vibe, I get to experience the best of both worlds.



Changes in taxi supply (vacant taxi density) of Shenzhen's local markets shortly after COVID relative to pre-COVID.

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7. What has been the highlight of your time at NU and CEE?

When I present my research work at the TRB Annual Meeting and INFORMS, I feel very proud to represent not only my research but also my department and the people who made this research possible.

8. What has been the most challenging aspect of your graduate school experience?

Finding the exact research topic that you are truly interested in is not an easy thing. There could be many moments of confusion, frustration, or even failure. I am very lucky to have a very supportive research environment in my research group to talk me through these moments.

9. Can you tell us about your experience being mentored or mentoring others?

The research life in this program is very flexible and in-depth. Everyone here is super open to sharing their research and experiences. The only limitation is how hard you push yourself to start the discussion with your mentor and other colleagues. As for the experience of mentoring others, I have been a TA for two undergraduate classes (Economics and Finance for Engineers, Engineering Analysis). I learned a lot from the TA work, for example, how to explain some concept systematically, or in several different ways to make sure the students really get the fundamental idea or intuition.

10. What are your interests or hobbies outside of your research?

I enjoy going outside and immersing myself in natural environments, such as hiking, running, and playing tennis.