



Sheng Wang is a Research Assistant Professor at the Department of Natural Resources and Environmental Sciences (NRES) and a Research Scientist at the Agroecosystem Sustainability Center (ASC) at the Institute for Sustainability, Energy, and Environment (ISEE).

Sheng Wang Research Assistant Professor

When chatting with Sheng Wang, you instantly feel his passion for research. As an environmental scientist working on bioenergy crop monitoring, he takes pride in his work knowing that his research efforts contribute to tackling environmental concerns such as climate change and increased carbon emission. Wang's inspiration to pursue environmental science stemmed from the natural surroundings in his hometown.

Originally from Southwest China, Wang grew up in a mountain city called Chongqing with the Yangtze River, the largest river in China, flowing through. Surrounded by mountains, water, and gorges, Wang became fond of nature and its beauty. "My hometown has one of the best primaeval forests of the same latitude in the world and is also close to the giant panda habitat," he said. "This also motivated me to explore nature."

After completing his BS in Geography at Nanjing University, Wang moved to Europe, in his first international experience of studying abroad. He received his double masters degree in Geography and in Water and Environment, a cooperation between the Chinese Academy of Sciences, in China, and the University of Copenhagen, in Denmark. After that, he developed airborne sensing systems to monitor willow bioenergy plantations at Risø National Laboratory for Sustainable Energy and received his PhD in Environmental Engineering from the Technical University of Denmark. "As an environmental enthusiast, I really like the Nordic lifestyle of cycling to work. I also like Copenhagen, which has strong ambitions to become the world's first carbon-neutral city by 2025," Wang said.

In the same year, Wang continued to travel the world and familiarize himself with different cultures, moving to UIUC in 2019. "I was attracted to the advanced research in biology, agriculture, and computer science here at the University of Illinois," Wang said. "The University of Illinois is a good environment for collaborating with students and

professors on interdisciplinary research." Here, he continues working as a research scientist in Kaiyu Guan's (CABBI) lab where he works at the interface of biology, ecology, artificial intelligence and agroecosystems. "I enjoy working with great scientists here like Dr. Kaiyu Guan and Dr. Lisa Ainsworth (CABBI/GEGC). They always give great inspiration to my research," Wang said.

Specifically, his research focuses on "leveraging satellite and airborne remote sensing technology along with artificial intelligence for monitoring large-scale

“在不同国家学习工作，
这让我非常幸运体验到了不同风土文化。”

*"I'm quite lucky I could experience
different cultures since I used to
work and study in different countries
around the world."*

bioenergy crop traits, soil properties, and farming management practices for sustainable agriculture in the US Corn Belt, the food basket of the world." Wang's approaches are used to address how climate and human practices affect bioenergy crop nutrients, productivity and ecosystem functioning.

"I am very enthusiastic about disseminating our research to the public to improve public awareness of climate change, environmental sustainability and carbon issues," Wang said. "It's important that we raise awareness for environmental concerns through outreach and dissemination events."

Most recently, Wang participated in the first year of the newly-formed Young Innovator Program, a collaboration between the Catherine and Don

Kleinmuntz Center for Genomics in Business and Society and the IGB. The program challenged trainees to become innovative leaders in their fields by bringing their science to society, culminating in a final presentation that highlighted a real-life problem and its solution.

When asked about his participation in the Young Innovator Program, he described it as "an amazing experience that other IGB postdocs and graduate students should also experience. I learned a lot of knowledge on how to make market sizing surveys, how to file IP and protect innovations, and how to link our current research with societal potential," he said. "I am thankful to Dr. Catherine Kleinmuntz, the Kleinmuntz Center, and the IGB for this opportunity."

When asked about the pandemic, Wang mentioned having to adjust his work style. "During the beginning of the pandemic, everything changed and we had to work from home. My research was affected because we were short-handed at that time and so we didn't have a lot of people who could go to the field to collect data," he said. Wang found himself jogging more often after realizing how "we are always working from home with very limited physical exercise."

"The pandemic gives us a brief lesson on how anthropogenic activities influence global society," Wang said. "We need to not only be aware of climate change but try to reduce our carbon footprint and make our environment more sustainable by developing new technology for renewable energy. In my hometown, we have around 80% of the energy coming from renewable hydropower. Renewable energy technology, for example bioenergy, is very important for the future of humankind." ■

Written by Joana Bordalo and Alisa King-Klemperer. Photo by Sheng Wang.