Meet Cheng, a third-year PhD student in biological engineering! Cheng is a first-generation college student from Qidong, China, about 60 miles outside of Shanghai. Before coming to USU, Cheng received a master’s degree in neurobiology from Nanjing Medical University; he hopes to become a professor in tissue engineering.

Q: Why did you decide to study engineering?
A: I’m interested in human cortical development. This area of research requires a strong background in engineering. In order to keep working on this project, I chose biological engineering when after graduating with my master’s.

Q: Why did you choose to attend USU?
A: My professor Dr. Huang is the main reason. He helped a lot in my research and supported me every time I was facing problems. One more thing is the history and culture in USU. It attracted me to study here and lets me enjoy the busy but peaceful life in Logan.

Q: Tell us about your research.
A: I focus on the 3D neural tissue engineering, including human brain organoid engineering. We also do research on the growth and development of human neural stem cells, as influenced by 3D-engineered microdevices and biomaterials.

Q: What are some of your hobbies?
A: Basketball and video games

Q: What is the most exciting thing you will do in 2021?
A: Proposal defense

Q: Favorite holiday?
A: Thanksgiving. My wife works in her family-owned restaurant, and Thanksgiving is the only day they close it. We enjoy family time for the whole day. I treasure it.

Q: Favorite food?
A: Ramen

Q: Favorite movie?
A: “The Shawshank Redemption”

Q: What has been the best part of your engineering education so far?
A: The seminar in our department. The department head, Dr. Roper, has invited people from different areas of our department and has given us clear descriptions of industrial and academic work. It helps us imagine what our future careers could be. And it also gives us more options when we graduate.

Q: What topic do you wish more people would learn about?
A: Human brain development/disease and regenerative medicine as influenced by 3D-engineered microdevices and biomaterials.

Q: Do you have a project that you’re really excited about?

A: We’re developing a Matrigel-free method to generate matured human cerebral organoids using 3D-printed microwell arrays.

Q: What is your advice to first-year grad students or to people thinking about grad school in engineering?

A: Make sure you will have enough time to communicate with your professor to decide your research area or direction. Have a routine meeting with your professor, your partner, and the graduate program coordinator in your department.

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