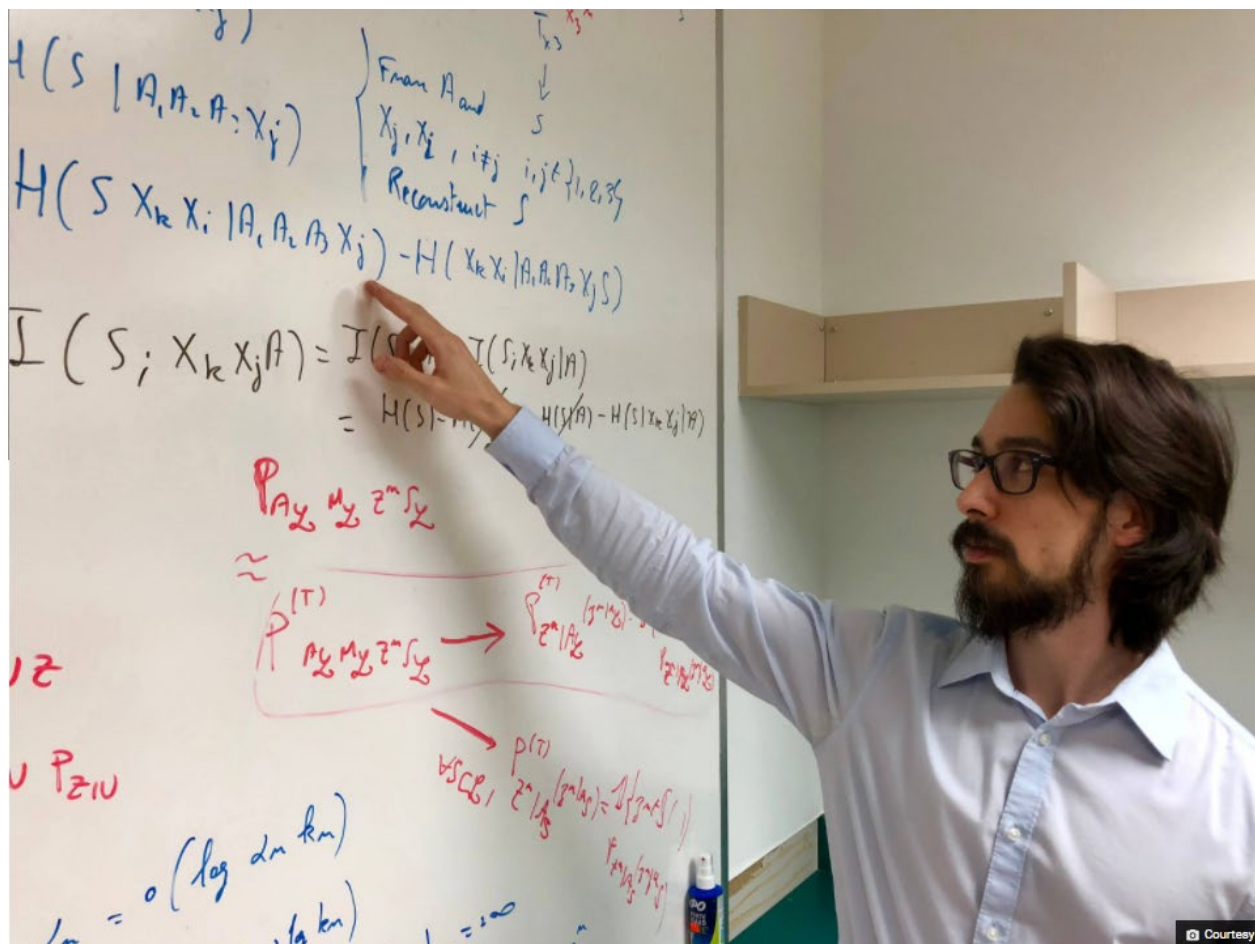![Wichita State University logo]

WSU News

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Wichita State's Rémi Chou wins top NSF early career researcher award

By Polly Basore Wenzl

Dr. Rémi A. Chou, an assistant professor in the Department of Electrical Engineering and Computer Science, has been awarded a National Science Foundation CAREER Award, the most prestigious award granted by the NSF to early career researchers.

Dr. Rémi A. Chou, an assistant professor in the Department of Electrical Engineering and Computer Science, has been awarded a National Science Foundation CAREER Award, the most prestigious award granted by the NSF to early career researchers.

Chou's grant – worth $519,000 over five years – will support his work in bringing more robust security to wirelessly transmitted data.

"The Faculty Early Career (CAREER) Development Program grants are the most prestigious awards in support of junior faculty who exemplify the role of teacher-scholars through outstanding research within the context of the mission of their organizations," according to NSF.

Chou joined Wichita State's Department of Electrical Engineering and Computer Science as an assistant professor in 2017. He teaches graduate level courses in computer networking, information theory, and data communications. He earned his Ph.D. in electrical engineering from Georgia Institute of Technology in 2015. Between 2015 and 2017, he was a postdoctoral research associate at Pennsylvania State University.

Chou proposes to build a comprehensive framework to enable the fundamental understanding and design of privacy-preserving wireless communication protocols, relying on new coding techniques from information theory, cryptography and deep machine learning.

According to the grant abstract, "ever-growing cyber-attacks can lead to data breaches and exposure of private user data held by third parties, including companies, government entities or medical institutions. A possible solution to such a risk is to implement privacy-preserving protocols between users and third parties that prevent any private information disclosure in the first place."

In addition to research, the grant will provide applied learning opportunities in research for graduate, undergraduate and high school students.

Dr. Jan Twomey, College of Engineering associate dean for graduate studies, research and faculty success, said the grant is another marker of the university's commitment to digital transformation.

"Dr. Chou's work addresses a topic of national importance: cybersecurity. With this grant he will make important contributions to both basic research and the education of our future workforce," Twomey said.