**Prof. Yanjiao Chen, Zhejiang University, China**

**Bio:**

Yanjiao Chen (Member, IEEE) received the BE degree in electronic engineering from Tsinghua University, Beijing, China, in 2010, and the PhD degree in computer science and engineering from the Hong Kong University of Science and Technology, Hong Kong, in 2015. She is currently a professor with Wuhan University, China. Her research interests include spectrum management for Femtocell networks, network economics, network security, and Quality of Experience (QoE) of multimedia delivery/distribution.

**Title：**

Explaining Shell Commands for Learners Using Large Language Models

**Abstract：**

Malicious shell commands are linchpins to many cyber-attacks, but may not be easy to understand by either novice learners or security analysts due to complicated and often disguised code structures. Advances in large language models (LLMs) have unlocked the possibility of generating understandable explanations for shell commands. However, existing general-purpose LLMs suffer from a lack of expert knowledge and a tendency to hallucinate in the task of shell command explanation. In this talk, we will present a knowledgeable, expressive and portable shell command explainer powered by LLM. We infuse the LLM with professional knowledge to provide comprehensive explanations on shell commands, including not only what the command does (i.e., behavior) but also why the command does it (i.e., purpose). This work may boost further research efforts on leveraging LLM for computer science educations.