Keynote Speech

Engineering Fine-Grain Dependability Requirements

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Abstract

The wide-spread use of software systems in critical applications requires them to exhibit compelling evidence that their services satisfy certain dependability properties. Naturally in such multi-faceted environments, dependability is inherently difficult to understand. The threads to software dependability come from both the environment in which the software operates and the software flaws. We need comprehensive approaches to deal with the challenges that inner or outer threads present. The foundation necessary to support such approaches is a sound solution that can help to identify, elicit, analyze, and specify the dependability requirements, and to make them explainable. This talk will propose a control-loop based approach for systematic dependability requirements engineering.

About the speaker

Zhi Jin is a professor of Computer Science at Peking University. She is deputy director of Key Lab of High Confidence Software Technologies (Ministry of Education) at Peking University and the Director of CCF TCSE. Her research work is primarily concerned with knowledge engineering and requirements engineering, focusing on knowledge/requirements elicitation, conceptual modeling and analysis. Recently, she pays more attentions on modeling of adaptive software systems. She is/was principle investigator of over 10 national competitive grants including the chief scientist of a national basic research project (973 project) of the Ministry of Science and Technology of China and the project leader of three key projects of national science foundation of China. Zhi was General Chair of RE2016, Program Co-chair of COMPSAC’11, General Co-Chair and Program Co-Chair of KSEM’10 and KSEM’09. She is executive editor-in-chief of Chinese Journal of Software, and is in the Editorial Board of REJ and IJSEKE. Zhi was Outstanding Youth Fund Winner of National Science Foundation of China in 2006 and Distinguished Young Scholars of Chinese Academy of Sciences in 2001. She was awarded Zhong Chuang Software Talent Award in 1998 and the First Prize of Science and Technology Outstanding Achievement: Science and Technology Progress Award (Ministry of Education, China) in 2013. She is co-author of two books and the co-author over 120 journal and conference publications. Zhi is a Fellow of CCF.