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Keynote Speech

Reliability Modeling for Large-Scale Computing System

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Abstract

It has become an important research area on how to make a large-scale computing system with higher reliability and intelligent self-improvement functions. This speech is mainly on large-scale computing system (LSCS) reliability modeling and optimization, and intelligent self-improvement in LSCS. Prof. Dai provides new ideas in merging Artificial Intelligence (AI) into Reliability area for Large-Scale computing system to have self-diagnosis and self-healing capability. Thus, the large-scale computing system (such as Cloud or Big-data system) can self-improve its reliability instead of traditional decrease with running time.

About the speaker

Yuanshun Dai's research mainly focuses on Reliability Modeling and Optimization, and is the Pioneer in studying the Reliability for Large-Scale Networking Systems, such as Complex software/hardware/network system reliability, Grid service reliability, Cloud system reliability, IoT system reliability as well as AI system reliability. In these fields, Dr. Dai has published more than 160 articles, where there are 4 books, 120 journal papers including 56 IEEE/ACM Transactions papers, and 38 conference papers including 2 Best Paper Awards. According to Google Scholar, Dr. Dai's papers are cited by others 3961 times and his h-index is 35 and i10-index is 81. Dr. Dai is continuously elected as "Chinese Most Cited Researchers" by Elsevier since 2015 every year till now, and is recently (2017) ranked No. 2 in China in the field of "Safety, Risk, Reliability and Quality", according to SCI others' citation number (>800 times). He also serves as the Director of "National-Local Joint Laboratory in Next Generation Network and Big-Data Technology", Associate Editor of IEEE Transactions on Reliability, Vice Dean of School of Computer Science & Engineering and Dean of School of Cyberspace Security in University of Electronic Science and Technology of China, etc.