Efficient and Private Data Analytics at Scale

ABSTRACT

With the ever-increasing data volume in the big data era, cost and performance efficiency have become important factors for data analytics systems to be useful in practice. However, as the system scale keeps growing, performance variation has become the norm rather than the exception in most parallel and distributed systems, which challenges existing system optimization methods. Further, the geographical distribution of large-scale data analytics applications raises privacy concerns, which further complicates system optimizations. In this talk, I will introduce our recent research progress on improving the system performance and privacy-preservation for data analytics at scale.

BIOGRAPHY

Amelie Chi Zhou is a tenured Associate Professor of Shenzhen University. She obtained her Ph.D. from Nanyang Technological University in 2016 and was a postdoc researcher at Inria Rennes from 2016-2017. Her research interests lie in high performance computing, cloud computing, and big data. Her work has been published in well-recognized conferences of the field, including SC, HPDC, SoCC, ICDCS, ICDE and SIGMOD. She has served as a PC member for a number of top-tiered conferences in the field such as USENIX FAST, ACM/IEEE SC and ACM HPDC. She is an Associate Editor of IEEE Transactions on Parallel and Distributed Computing (TPDS) and an Editor of the FGCS journal. She is a winner of the IEEE-CS TCHPC Early Career Researchers Award and the Best Paper Award of IEEE TPDS.