From Data Mining/Machine Learning to Big Data Analytics

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Abstract:

This talk investigates the problem of how we can design Big Data analytic algorithms that aim to maximally exploit distributed and parallel infrastructures to gain efficiency and effectiveness. The talk will look at some existing popular approaches that transform a well-known data-mining algorithm into its corresponding Big Data analytic algorithm. It will show experimental results and identify issues of these approaches. The talk uncovers a fundamental property that can hinder the optimal exploitability of current Big Data frameworks.

Biography:

Rattikorn Hewett is a Professor and Chair of the department of Computer Science at Texas Tech University. She has a Ph.D. in Computer Science from Iowa State University, an M. Eng. Sc. in Computer Science from the University of New South Wales, and a B.A. Honors degree in Pure Mathematics and Statistics from Flinders University, Australia. Hewett was a postdoctoral fellow at Stanford University, a 2016 ELATE fellow, a recipient of an NSF Research Initiation Award and a recipient of Colombo plan scholarships from the Australian government. Her applied research in Artificial Intelligence covers: *Cyber security*, *Data Science*, *Automated Software/System Engineering*, and *Intelligent controls & reasoning*. Her research sponsors include NSF, DARPA, DOE, EPRI, Florida State, Texas State, Boeing and IBM. She has published over 100 peer-reviewed technical articles, and has served on several journal editorial boards, and numerous conference program committees.