NATIONAL UNIVERSITY OF SINGAPORE

School of Computing

C S S E M I N A R

Title: **In-memory ByteStore: Low Level Storage, High Level Performance**

Speaker: Associate Professor Eric Lo
Department of Computer Science and Engineering
Chinese University of Hong Kong (CUHK)

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Chaired by: Dr He Bingsheng, Associate Professor, School of Computing
(hebs@comp.nus.edu.sg)

Abstract:

Byte is arguably the finest level of data unit that is directly addressable in most memory classes. In this talk, I will present ByteStore, a data store that achieves real-time query performance by storing and manipulating data values at byte level. ByteStore adopts a byte-level storage layout and thus bytes from different row/column values can be co-processed together. Experiments show that all primitive data processing operators could benefit from the byte-level storage when using with various byte-level optimization techniques.

Biodata:

Eric Lo is an associate professor of Computer Science and Engineering at the Chinese University of Hong Kong (CUHK). He received his Ph.D. in Computer Science from ETH Zurich. Before he returned to Hong Kong, he worked at Google and Microsoft. His recent research focuses on hardware-software co-design, distributed systems (especially blockchain), supercomputing, system security, and data science.