

Data Science and Analytics Webinar Series 2021

Cloud Native Database Systems for Enterprise Applications

 **8 Mar 2021** (Mon)
 **18:00 – 18:50** (HKT, UTC+08:00)
 **Online via Zoom**
(Link to be provided upon registration)

Speaker: Dr. Feifei Li
Vice President of Alibaba Group,
ACM Distinguished Scientist,
President of the Database Products
Business Unit of Alibaba Cloud Intelligence,
Director of Database and Storage Lab of
DAMO academy

Abstract

Cloud native database becomes increasingly important for the era of cloud computing, due to the needs for elasticity and high availability. A cloud native database system leverages software-hardware co-design to explore accelerations offered by new hardware such as RDMA and NVM. New design architectures such as shared-storage and shared-everything enable a cloud native database to decouple computation from storage and provide elasticity. For highly concurrent workloads that require horizontal scalability, a cloud native database can also leverage a shared-nothing layer to provide distributed query and transaction processing. Cloud applications also require that cloud native databases to offer high availability through distributed consensus protocols. Furthermore, The need for integrating big data processing workloads with a traditional OLAP data warehouse inside a cloud native database/data warehouse becomes increasingly imperative, so that the system can provide both real-time online interactive analytics and batched offline ETL with complex computation. We will present key technical ideas towards building cloud native database systems, as well as the application and integration and big data and AI techniques in such systems.

About the speaker

Feifei Li is currently a Vice President of Alibaba Group, ACM Distinguished Scientist, President of the Database Products Business Unit of Alibaba Cloud Intelligence, and Director of the Database and Storage Lab of DAMO academy. He has won multiple awards from ACM and IEEE and others. He is a recipient of the IEEE ICDCS best paper award, ACM SoCC 2019 Best Paper Award Runner-up, IEEE ICDE 2014 10 Years Most Influential Paper Award, ACM SIGMOD 2016 Best Paper Award, ACM SIGMOD 2015 Best System Demonstration Award, IEEE ICDE 2004 Best Paper Award. He has been an associate editor, PC co-chairs, and core committee members for many prestigious journals and conferences, and has led the R&D efforts of building cloud native database systems and products at Alibaba.



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 bdi@ust.hk

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