

Student Research Seminar

Differentially Private Continual Monitoring of Heavy Hitters from Distributed Streams over a Sliding Window

Mr Li Mingfei

Date:

October 14, 2011

Friday

11:00 am

Venue:

Room 313

Chow Yei Ching Building

The University of Hong Kong

Abstract:

We consider a privacy sensitive application in a distributed setting where each node receives a private stream of items. An untrusted aggregator wishes to continually monitor the frequent items (or heavy hitters) in all streams within a sliding window. We design an efficient distributed protocol run by each node to allow arbitrarily small relative error that achieves the following goals: (1) differential privacy against the aggregator, (2) low memory usage by each node, (3) small number of operations to process each item, (4) low communication cost with the aggregator.

About the Speaker:

Li Mingfei is a full-time MPhil Student in the Department of Computer Science, The University of Hong Kong. His Supervisor is Dr. Hubert Chan. His research interest is metric spaces and data privacy.

All are welcome!
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