Large Scale Data Processing and Analytics

World-leaders in developing efficient and effective processing and analysis techniques for large-scale data, especially graph/network data, geo-spatial data, streaming data and uncertain data.

Competitive advantage

- Large-scale graph/network data storage and indexing
- Innovative, structure-based query processing over graph/network data
- Expertise in social network analysis
- Ability to query multi-dimensional data
- Ability to process queries over moving objects
- Experience with Computing Order Statistics over Data Streams
- Highly skilled at processing probabilistic queries over uncertain data

Impact

- More effective models to analyse large-scale data
- More efficient and scalable processing techniques to process large-scale data

Successful applications

- Spam and fraud detection in E-commerce networks (Alibaba Group)
- Developing Large Scale Distributed Graph Processing Platform (Alibaba Group)
- Anomaly detection in communication networks (HUAWEI)
- Optimal Paths with Multi-sources and Traffic Flows in Road Networks (HUAWEI)
- Taming Uncertainty of Distributed Data (Google)
- Processing of large graphs (ARC Discovery Project 2014, 2015, 2017, 2018)
- Multi-dimensional and spatial data processing (ARC Discovery Project 2012, 2015)

Capabilities and facilities

- FIP - High-performance GPU accelerated large-scale data processing.

Our partners

- Google
- Alibaba Group
- HUAWEI

More Information

Scientia Professor Xuemin Lin

School of Computer Science and Engineering

T: +61 (0) 2 9385 6493
E: lxue@cse.unsw.edu.au

Associate Professor Wenjie Zhang

School of Computer Science and Engineering

T: +61 (0) 2 9385 7799
E: wenjie.zhang@unsw.edu.au

UNSW Knowledge Exchange

knowledge.exchange@unsw.edu.au

www.capabilities.unsw.edu.au

+61 (2) 9385 5008