

DSAA2014

30 October - 1 November, 2014, Shanghai, China

<http://datamining.it.uts.edu.au/conferences/dsaa14/>



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Data driven scientific discovery approach has already been agreed to be an important emerging paradigm for computing in areas including social, service, Internet of Things (or sensor networks), and cloud. Under this paradigm, Big Data is the core that drives new researches in many areas, from environmental to social. There are many new scientific challenges when facing this big data phenomenon, ranging from capture, creation, storage, search, sharing, analysis, and visualization. The complication here is not just the storage, I/O, query, and performance, but also the integration across heterogeneous, interdependent complex data resources for real-time decision-making, collaboration, and ultimately value co-creation. Data sciences encompass the larger areas of data analytics, machine learning and managing big data. Data analytics has become essential to glean some understanding from large data sets and convert data into actionable intelligence. With the rapid growth in the volumes of data available to enterprises, Government and on the web, automated techniques for analyzing the data have become essential.

The 2014 International Conference on Data Science and Advanced Analytics (DSAA'2014) aims to provide a timely forum that brings together researchers, industry practitioners, as well as potential users of Big Data, to promote collaborations and exchange of ideas and practices, discuss new opportunities, and investigate the best actionable analytics framework for wide range of applications. The conference solicits experimental and theoretical works on data science and advanced analytics along with their application to real life situations.

Topics of Interest

Foundations

- New mathematical, probabilistic and statistical models and theories
- New learning theories, models and systems
- Deep analytics and learning
- Distributed and parallel computing (cloud, map-reduce, etc.)
- Non-iidness (heterogeneity & coupling) learning
- Invisible structure, relation and distribution learning
- Intent and insight learning
- Scalable analysis and learning
- Mining multi-source and mixed-source information
- Architecture, management and process
- Data pre-processing, sampling and reduction
- Feature selection and feature transformation
- High performance/parallel/distributed computing
- Analytics architectures and infrastructure
- Heterogeneous data/information integration
- Crowdsourcing
- Human-machine interaction and interfaces

Retrieval, query and search

- Web/social web/distributed search
- Indexing and query processing
- Information and knowledge retrieval
- Personalized search and recommendation
- Query languages and user interfaces

Analytics, discovery and learning

- Mixed-type data
- Mixed-structure data
- Big data modeling and analytics
- Multimedia/stream/text/visual analytics
- Coupling, link and graph mining

- Personalization analytics and learning
- Web/online/network mining and learning
- Structure/group/community/network mining
- Big data visualization analytics
- Large scale optimization

Privacy and security

- Security, trust and risk in big data
- Data integrity, matching and sharing
- Privacy and protection standards and policies
- Privacy preserving big data access/analytcs
- Social impact

Evaluation, applications and tools

- Data economy
- Domain-specific applications
- Quality assessment and interestingness metrics
- Complexity, efficiency and scalability
- Anomaly/fraud/exception/change/event/crisis analysis
- Large-scale recommender and search systems
- Big data representation and visualization
- Post-processing and post-mining
- Large Scale Application Case Studies
- Online/business/government data analysis
- Mobile analytics for handheld devices
- Living analytics

Publications

All accepted papers will be published by IEEE and IEEE Xplore. The conference proceedings will be submitted for EI indexing through INSPEC by IEEE. Selected top quality papers accepted and presented in the conference for extension and publication in the special issue of some international journals, including IEEE Intelligent Systems, WWWJ, and Neurocomputing. The accepted workshop papers will be published through Springer CCIS series.

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