

DASFAA 2019 Timetable

Date	Time	Room 1	Room 2	Room 3	Room 4	Room 5	Poster Area	
Monday April 22, 2019	08:00-09:00	Registration						
	09:00-10:15			Workshop BDMS 1				
	10:15-10:30	Coffee break						
	10:30-12:10			Workshop BDMS 2				
	12:10-13:30	Lunch						
	13:30-14:45			Workshop GDMA				
	14:45-15:00	Coffee break						
	15:00-16:40			Workshop BDQM				
18:00-20:00	Reception							
Tuesday April 23, 2019	08:00-09:00	Registration						
	09:00-09:30	Opening						
	09:30-10:30	Keynote 1: Knowledge Base Refinement and Enhancement by Lei Chen <i>Session chairs: Xue Li, Qing Li and Xiaofang Zhou</i>						
	10:30-11:00	Coffee break						
	11:00-12:00	Panel: Big Data Analytics in AI era						
	12:00-13:30	Lunch						
	13:30-15:30		Session 2: Graphs <i>Session chair: Qun Chen</i>	Session 1: Big Data <i>Session chair: Weiwei Sun</i>	Tutorial 1: Deep learning for Healthcare Data Processing <i>by Guodong Long, and Weitong Chen</i>		Poster 1	
	15:30-16:00	Coffee break						
16:00-18:00		Session 4: Clustering & Classification <i>Session chair: Yu Gu</i>	Session 3: Crowdsourcing <i>SC: Xiangfu Meng</i>	Tutorial 2: Knowledge Graph Data Management <i>by Xin Wang</i>		Poster 2		

(Continued on next page)

Date	Time	Room 1	Room 2	Room 3	Room 4	Room 5	Poster Area
Wednesday, April 24, 2019	08:30-09:30			Keynote 2: Databases on the Cloud -- Architectural Implications by Ashraf Aboulnaga <i>Session chairs: Xue Li, Qing Li and Xiaofang Zhou</i>			
	09:30-10:00	Coffee break					
	10:00-12:00	Session 6: Embedding <i>Session chair: Lei Duan</i>	Session 5: Data Integration <i>Session chair: Yi Cai</i>	Tutorial 3: Cohesive Subgraphs with Hierarchical Decomposition on Big Graphs by Wenjie Zhang			Poster 2
	12:00-13:30	Lunch					
	13:30-15:30	Demo	Session 8: Machine learning 1 <i>Session chair: Chengfei Liu</i>	Session 7: Knowledge Graph 1 <i>Session chair: Dingming Wu</i>	Tutorial 4: Enterprise Knowledge Graph from Specific Business Task to Enterprise Knowledge Management by Rong Duan		
	15:30-16:00	Coffee break					
	16:00-18:00		Session 10: Machine learning 2 <i>SC: Jeerayut Chaijarwanich</i>	Session 9: Knowledge Graph 2 <i>Session chair: Xin Wang</i>	Tutorial 5: Tracking User Behaviours: Laboratory-Based and In-The-Wild User Studies by Gianluca Demartini		Poster 1
	18:30-20:00	Banquet					
Thursday, April 25, 2019	08:30-09:30			Keynote 3 - Information-on-the-Go: Applications and Foundation by Anthony K. H. Tung <i>Session chairs: Xue Li, Qing Li and Xiaofang Zhou</i>			
	09:30-10:00	Coffee break					
	10:00-12:00	Session 13: Social network <i>Session chair: Pruet Boonma</i>	Session 12: Recommendation 1 <i>Session chair: Tiejun Qian</i>	Session 11: Spatial <i>Session chair: Wei Wang</i>	Tutorial 6: Mining Knowledge Graphs for Vision Tasks <i>by Xiaojun Chang</i>		
	12:00-13:30	Lunch					
	13:30-15:30	Session 16: Privacy & Graph <i>Session chairs: Chih-Ya Shen and Keng-Pei Lin</i>	Session 15: Recommendation 2 <i>SC: Pree Thiengburanathum</i>	Session 14: Spatio-temporal <i>Session chair: Yong Zhang</i>	Demo		
	15:30-16:00	Coffee break					

* Full research papers will be given 24 minutes for oral presentation including Q&A.

** Short research and demo papers will be given slots for poster presentation, the presenter needs to be there for the whole timeslot. The size of poster should be A1 (594 x 841 mm or 23.4 x 33.1 in).

Keynote 1

Title: Knowledge Base Refinement and Enhancement

Speaker: Prof. Lei Chen, Hong Kong University of Science and Technology

Abstract

Nowadays knowledge bases has been serving as promising and effective tools for people to explore knowledge in different areas, such as DBPedia, Yago, Freebase and Knowledge Vault from Google. Therefore, enhancing the knowledge bases and making a good trade-off between completeness and correctness has been raised up as an important task. In order to further increase the utility of knowledge bases, various refinement methods have been proposed. These methods either try to add or infer missing knowledge to the original knowledge bases or aim at identifying incorrect information contained.

In this talk, I will provide an overview of the knowledge base refinement and enhancement approaches. Then, I will discuss knowledge base enhancement via data facts and crowdsourcing, knowledge truth discovery from conflicting sources and knowledge bases canonicalization from source texts. Finally, I will present some interesting work on subjective knowledge base construction and enhancement.

Bio

Lei Chen received the BS degree in computer science and engineering from Tianjin University, Tianjin, China, in 1994, the MA degree from Asian Institute of Technology, Bangkok, Thailand, in 1997, and the PhD degree in computer science from the University of Waterloo, Canada, in 2005. He is currently a full professor in the Department of Computer Science and Engineering, Hong Kong University of Science and Technology. His research interests include crowdsourcing over social media, social media analysis, probabilistic and uncertain databases, and privacy-preserved data publishing. The system developed by his team won the excellent demonstration award in VLDB 2014. He got the SIGMOD Test-of-Time Award in 2015. He is PC Track chairs for SIGMOD 2014, VLDB 2014, ICDE 2012, CIKM 2012, SIGMM 2011. He has served as PC members for SIGMOD, VLDB, ICDE, SIGMM, and WWW. Currently, he serves as PC co-chair for VLDB 2019, Editor-in-Chief of VLDB Journal and an associate editor-in-chief of IEEE Transaction on Data and Knowledge Engineering. He is a member of the VLDB endowment and ACM Distinguished Scientist.

Session chairs

Xue Li, Qing Li and Xiaofang Zhou

Keynote 2

Title: Databases on the Cloud -- Architectural Implications

Speaker: Dr. Ashraf Abounaga, Qatar Computing Research Institute

Abstract

We are in the midst of a mass migration of databases to the cloud. This represents a fundamental shift in the computing and storage platforms underlying database systems, with implications for users and system designers. In this talk, we discuss some of these implications, touching on elastic provisioning, high availability, and storage disaggregation.

Bio

Ashraf Abounaga is a Senior Research Director at the Qatar Computing Research Institute, Hamad Bin Khalifa University. His research focuses on databases and distributed systems. Ashraf obtained M.S. and Ph.D. degrees from the University of Wisconsin - Madison, and B.S. and M.S. degrees from Alexandria University, all in computer science. Prior to joining QCRI he was an Associate Professor at the University of Waterloo. Before Waterloo he was a Research Staff Member at the IBM Almaden Research Center. Ashraf has received a Google Research Award, the Ontario Early Researcher Award, and Best Paper Awards at the VLDB 2011 and SoCC 2015 conferences. He serves on the editorial boards of the VLDB Journal, the IEEE Transactions on Knowledge and Data Engineering, and the Distributed and Parallel Databases journal. He is an IEEE Senior Member and an ACM Distinguished Scientist.

Session chairs

Xue Li, Qing Li and Xiaofang Zhou

Keynote 3

Title: Information-on-the-Go: Applications and Foundation

Speaker: Dr. Anthony K. H. Tung, National University of Singapore

Abstract

Advances in computing and networking hardware have now enabled information to be provided as and when users need them. We call this concept Information-on-the-Go. In this talk, we will first introduce the concept of Collaborative Social Network (CSN) where users can collaborate over some central theme on the social network so that information can be shared between them dynamically. I will introduce two examples of CSNs,

- I. ARShop(<http://shopbyar.com/>) a system to support shopping using augmented reality and
- II. Readpeer (ivle.readpeer.com), a system for documents annotations sharing and enrichment

We will then look at the foundational research that support ARShop and Readpeer: GENIE and LAMP (www.comp.nus.edu.sg/~atung/gl), a system for just-in-time model construction using modern hardware. Explanation will be provided on how “Variety”, the third ‘V’s of big data can be addressed by the GENIE and LAMP framework.

Bio

Dr Anthony K. H. Tung is currently an Associate Professor in the Department of Computer Science, National University of Singapore (NUS). He received both his B.Sc.(2nd Class Honour) and M.Sc. in computer sciences from the National University of Singapore in 1997 and 1998 respectively. In 2001, he received the Ph.D. in computer sciences from Simon Fraser University (SFU). Dr Anthony Tung main research areas are on searching, mining and visualizing complex data. More recently, he also looks into the creation of innovative big data applications over the data processing techniques that he had developed over the past 18 years. Anthony is also the deputy director of NUS NCript research center.

Session chairs

Xue Li, Qing Li and Xiaofang Zhou

Workshop Session BDMS 1

Monday, April 22, 2019 09:00 – 10:15 room number 1

1. A Probabilistic Approach for Inferring Latent Entity Associations in Textual Web Contents
Lei Li, Kun Yue, Binbin Zhang, and Zhengbao Sun
2. UHRP: Uncertainty-Based Pruning Method for Anonymized Data Linear Regression
Kun Liu, Wenyan Liu, Junhong Cheng, and Xingjian Lu
3. Meta-path based MiRNA-disease Association Prediction
Hao Lv, Jin Li, Sai Zhang, Kun Yue, and Shaoyu Wei

Workshop Session BDMS 2

Monday, April 22, 2019 10:30 – 12:10 room number 1

1. Medical Question Retrieval based on Siamese Neural Network and Transfer learning method
Kun Wang, Bite Yang, and Xiaofeng He
2. An adaptive Kalman filter based Ocean Wave Prediction Model using Motion Reference Unit Data
Yan Tang, Zequan Guo, and Yin Wu
3. ASLM: Adaptive Single Layer Model for Learned Index
Xin Li, Jingdong Li, and Xiaoling Wang
4. SparseMAAC: Sparse Attention for Multi-Agent Reinforcement Learning
Wenhao Li, Bo Jin, and Xiangfeng Wang

Workshop Session GDMA

Monday, April 22, 2019 13:30 – 14:45 room number 1

1. ANDMC: An Algorithm for Author Name Disambiguation Based on Molecular Cross Clustering
Siyang Zhang, Xinhua E, Tao Huang, and Fan Yang
2. Graph-Based Aspect Extraction and Rating Classification of Customer Review Data
Sung Whan Jeon, Hye Jin Lee, Hyeonguk Lee, and Sungzoon Cho
3. Streaming Massive Electric Power Data Analysis Based on Spark Streaming
Xudong Zhang, Zhongwen Qian, Siqi Shen, Jia Shi, and Shujun Wang

Workshop Session BDQM

Monday, April 22, 2019 15:00 – 16:40 room number 1

1. Identifying reference relationship of desktop files based on access logs
Yukun Li, Xun Zhang, Jie Li, and Yuan Wang
2. Visualization of photo album: selecting a representative photo of a specific event
Ming Geng, Yukun Li, and Fenglian Liu
3. Title: Data Quality Management in Institutional Research Output Data Center
Xiaohua Shi, Zhuoyuan Xing, and Hongtao Lu
4. Generalized Bayesian Structure Learning from Noisy Datasets
Yan Tang, Yu Chen, and Gaolong Ge

Session 1 Big Data

Session chair: Weiwei Sun

Tuesday, April 23, 2019 13:30 – 15:30 room number 1

1. Accelerating Real-time Tracking Applications over Big Data Stream with Constrained Space
Guangjun Wu, Xiaochun Yun, Chao Li, Shupeng Wang, and Zhihui Zhao
2. A Frequency Scaling based Performance Indicator Framework for Big Data Systems
Chen yang, Zhihui Du, Xiaofeng Meng, Yongjie Du, and Zhiqiang Duan
3. A Time-Series Sockpuppet Detection Method for Dynamic Social Relationships
Wei Zhou, Jingli Wang, Junyu Lin, Jizhong, and Songlin Hu
4. Accelerating Hybrid Transactional/Analytical Processing using Consistent Dual-Snapshot
Liang Li, Gang Wu, Guoren Wang, and Ye Yuan
5. HSDS: an Abstractive Model for Automatic Survey Generation
Xiao-Jian Jiang, Xian-Ling Mao, Bo-Si Feng, Xiaochi Wei, and Binbin Bian
6. PU-Shapelets: Towards Pattern-based Positive Unlabeled Classification of Time Series
Shen Liang, Yanchun Zhang, and Jiangang Ma

Session 2 Graphs

Session chair: Qun Chen

Tuesday, April 23, 2019 13:30 – 15:30 room number 2

1. Distributed Parallel Structural Hole Detection on Big Graphs
Faming Li, Jianzhong Li, Yingshu Li, and Yubiao Chen
2. DynGraphGAN: Dynamic Graph Embedding via Generative Adversarial Networks
Yun Xiong, Yao Zhang, Hanjie Fu, Wei Wang, Yangyong Zhu and Philip S Yu
3. Evaluating Mixed Patterns on Large Data Graphs Using Bitmap Views
Xiaoying Wu, Dimitri Theodoratos, Dimitrios Skoutas and Michael Lan
4. Heterogeneous Information Network Hashing for Fast Nearest Neighbor Search
Zhen Peng, Minnan Luo, Jundong Li, Chen Chen and Qinghua Zheng
5. Learning Fine-grained Patient Similarity with Dynamic Bayesian Network Embedded RNNs
Yanda Wang, Weitong Chen, Bohan Li, and Robert Boots
6. Towards Efficient k-TriPeak Decomposition on Large Graphs
Xudong Wu, Long Yuan, Xuemin Lin, Shiyu Yang, and Wenjie Zhang

Session 3 Crowdsourcing

Session chair: Xiangfu Meng

Tuesday, April 23, 2019 16:00 – 18:00 room number 1

1. Fast Quorum-based Log Replication, and Replay for Fast Databases
Donghui Wang, and Peng Cai
2. PDCS: A Privacy-preserving Distinct Counting Scheme for Mobile Sensing
Xiaochen Yang, Ming Xu, Shaojing Fu, and Yuchuan Luo
3. Reinforced Reliable Worker Selection for Spatial Crowdsensing Networks
Yang Wang, Junwei Lu, Jingxiao Chen, Xiaofeng Gao, and Guihai Chen
4. SeqST-ResNet: A Sequential Spatial Temporal ResNet for Task Prediction in Spatial Crowdsourcing
Dongjun Zhai, An Liu, Shi Cheng Chen, Zhixu Li, and Xiangliang Zhang
5. Towards Robust Arbitrarily Oriented Subspace Clustering
Zhong Zhang, Chongming Gao, Chongzhi Liu, Qinli Yang, and Junming Shao
6. Truthful Crowdsensed Data Trading Based on Reverse Auction and Blockchain
Baoyi An, Mingjun Xiao, An Liu, Guoju Gao, and Hui Zhao

Session 4 Clustering & Classification

Session chair: Yu Gu

Tuesday, April 23, 2019 16:00 – 18:00 room number 2

1. Discovering Relationship Patterns among Associated Temporal Event Sequences
Chao Han, Lei Duan, Zhangxi Lin, Rich Qin, Peng Zhang, and Jyrki Nummenmaa
2. Efficient Mining of Event Periodicity in Data Series
Hua Yuan, Yu Qian, and Bai Mengna
3. EPPADS: An Enhanced Phase-based Performance-Aware Dynamic Scheduler for High Job Execution Performance in Large Scale Data Clusters.
Prince Hamandawana, Ronnie Mativenga, Se Jin Kwon, and Tae Sun Chung
4. Incremental Discovery of Order Dependencies on Tuple Insertions
Lin Zhu, Zijing Tan, Xu Sun, and Xiangdong Zhou
5. Multi-view Spectral Clustering via Weighted-view Consensus Similarity, and Matrix-decomposition based Discretization
Man Sheng Chen, Ling Huang, Chang Dong Wang, and Dong Huang
6. SIRCS: Slope-intercept-residual Compression by Correlation Sequencing for Multi-stream High Variation Data
Zixin Ye, Wen Hua, Liwei Wang, and Xiaofang Zhou

Session 5 Data Integration

Session chair: Yi Cai

Wednesday, April 24, 2019 10:00 – 12:00 room number 1

1. Efficient Search of the Most Cohesive Co-Located Community in Attributed Networks
Jiehuan Luo, Xin Cao, Qiang Qu, and Yaqiong Liu
2. Selective Matrix Factorization for Multi-Relational Data Fusion
Yuehui Wang, Guoxian Yu, Jun Wang, Carlotta Domeniconi, Xiangliang Zhang, and Maozu Guo
3. Selectivity Estimation on Set Containment Search
Yang Yang, Ying Zhang, Wenjie Zhang, Xuemin Lin, and Liping Wang
4. Typicality-based Across-time Mapping of Entity Sets in Document Archives
Yijun Duan, Adam Jatowt, Sourav S Bhowmick, and Masatoshi Yoshikawa
5. Unsupervised Entity Alignment using Attribute Triples and Relation Triples
Fuzhen He, Zhixu Li, Qiang Yang, An Liu, Guanfeng Liu, Pengpeng Zhao, Lei Zhao, Min Zhang, and Zhigang Chen
6. Combining Meta-Graph and Attention for Recommendation over Heterogeneous Information Network
Chenfei Zhao, Hengliang Wang, Yuan Li, and Kedian Mu

Session 6 Embedding

Session chair: Lei Duan

Wednesday, April 24, 2019 10:00 – 12:00 room number 2

1. A Weighted Word Embedding Model for Text Classification
Haopeng Ren, Zequan Zeng, Yi Cai, Qing Du, and Qing Li
2. Bipartite Network Embedding via Effective Integration of Explicit and Implicit Relations
Yaping Wang, Chunyu Lu, Hongtao Liu, Wenjun Wang, and Pengfei Jiao
3. Enhancing Network Embedding with Implicit Clustering
Qi Li, Jiang Zhong, Qing Li, Xue Li, and Chen Wang
4. MDAL: Multi-task Dual Attention LSTM Model for Semi-supervised Network Embedding
Longcan Wu, Daling Wang, Shi Feng, Ge Yu, and Yifei Zhang
5. Net2Text: An Edge Labelling Language Model for Personalized Comment Generation
Shaofeng Xu, Yun Xiong, Xiangnan Kong, and Yangyong Zhu
6. Understanding Information Diffusion via Heterogeneous Information Network Embeddings
Yuan Su, Xi Zhang, Senzhang Wang, Binxing Fang, Tianle Zhang, and Philip Yu

Session 7 Knowledge Graph 1

Session chair: Dingming Wu

Wednesday, April 24, 2019 13:30 – 15:30 room number 1

1. Evaluating the Choice of Tags in CQA Sites
Rohan Banerjee, Sailaja Rajanala, and Manish Singh
2. Knowledge Graph 1 Fast Maximal Clique Enumeration for Real-world Graphs
Yinuo Li, Zhiyuan Shao, Dongxiao Yu, Xiaofei Liao, and Hai Jin
3. Knowledge Graph 1 Leveraging Knowledge Graph Embeddings for Natural Language Question Answering
Ruijie Wang, Meng Wang, Jun Liu, and Weitong Chen
4. Knowledge Graph 1 Measuring Semantic Relatedness with Knowledge Association Network
Jiapeng Li, Wei Chen, Binbin Gu, Junhua Fang, Zhixu Li, and Lei Zhao
5. Knowledge Graph 1 SINE: Side Information Network Embedding
Zitai Chen, Tongzhao Cai, Chuan Chen, Zibin Zheng, and Guohui Ling

Session 8 Machine learning 1

Session chair: Chengfei Liu

Wednesday, April 24, 2019 13:30 – 15:30 room number 2

1. An Approach Based on Bayesian Networks for Query Selectivity Estimation
Max Halford, Philippe Saint Pierre, and Franck Morvan
2. An Exploration of Cross-Modal Retrieval for Unseen Concepts
Fangming Zhong, Zhikui Chen, and Geyong Min
3. Continuous Patient-centric Sequence Generation via Sequentially Coupled Adversarial Learning
Lu Wang, Wei Zhang, and Xiaofeng He
4. DMMAM: A Deep Multi-source Multi-task Attention Model for Intensive Care Unit Diagnosis
Zhenkun Shi, Wanli Zuo, Weitong Chen, Shining Liang, Yuwei Hao, and Lin Yue
5. Learning k-Occurrence Regular Expressions with Interleaving
Yeting Li, Xiaolan Zhang, Jialun Cao, and Haiming Chen
6. Learning from User Social Relation for Document Sentiment Classification
Kangzhi Zhao, Yong Zhang, Yan Zhang, Chunxiao Xing, and Chao Li

Session 9 Knowledge Graph 2

Session chair: Xin Wang

Wednesday, April 24, 2019 16:00 – 18:00 room number 1

1. A Knowledge Graph Enhanced Topic Modeling Approach for Herb Recommendation
Xinyu Wang, Ying Zhang, Xiaoling Wang, and Jin Chen
2. Knowledge Base Error Detection with Relation Sensitive Embedding
San Kim, Xiuxing Li, Kaiyu Li, and Jianhua Feng
3. Leon: A Distributed RDF Engine for Multi-query Processing
Xintong Guo
4. MathGraph: A knowledge graph for solving mathematical exercises
Tianyu Zhao, Yan Huang, Songfan Yang, Yuyu Luo, Jianhua Feng, Yong Wang, Haitao Yuan, Kang Pan, Kaiyu Li, Haoda Li, and Fu Zhu
5. Multi-Hop Path Queries over Knowledge Graphs with Neural Memory Networks
Qinyong Wang, Hongzhi Yin, Weiqing Wang, Zi Huang, Guibing Guo, and Quoc Viet Hung Nguyen
6. Sentiment Classification by Leveraging the Shared Knowledge
Guangyi Lv, Shuai Wang, Bing Liu, Enhong Chen, and Kun Zhang

Session 10 Machine learning 2

Session chair: Jeerayut Chaijaruwanich

Wednesday, April 24, 2019 16:00 – 18:00 room number 2

1. Reinforcement Learning to Diversify Recommendations
Lixin Zou, Long Xia, Weidong Liu, and Jiaying Song
2. Retweeting Prediction using Matrix Factorization with Binomial Distribution and Contextual Information
Bo Jiang, Zhigang Lu, and Ning Li
3. Sparse Gradient Compression for Distributed SGD
Haobo Sun, Yingxia Shao, Jiawei Jiang, Bin Cui, Kai Lei, Yu Xu, and Jian Wang
4. STDR: A Deep Learning Method for Travel Time Estimation
Xu Jie, Yong Zhang, and Chunxiao Xing
5. Using Fractional Latent Topic to Enhance Recurrent Neural Network in Text Similarity Modeling
Yang Song, and Liang He
6. Efficiently Mining Maximal Diverse Frequent Itemsets
Dingming Wu, Dexin Luo, Christian Jensen, and Joshua Zhexue Huang

Session 11 Spatial

Session chair: Wei Wang

Thursday, April 25, 2019 10:00 – 12:00 room number 1

1. A Hierarchical Index Structure for Region-aware Spatial Keyword Search with Edit Distance Constraint
Junye Yang, Yong Zhang, Huiqi Hu, and Chunxiao Xing
2. Collective POI Querying Based on Multiple Keywords and User Preference
Dongjin Yu, Yiyu Wu, Chengfei Liu, and Xiaoxiao Sun
3. DPSCAN: Structural Graph Clustering Based on Density Peaks
Changfa Wu, Yu Gu, and Ge Yu
4. Spatial Efficient Processing of Spatial Group Preference Queries
Peiquan Jin
5. Reverse-Auction-Based Competitive Order Assignment for Mobile Taxi-Hailing Systems
Hui Zhao, Mingjun Xiao, Jie Wu, An Liu, and Baoyi An
6. Top-k Spatio-Topic Query on Social Media Data
Lianming Zhou, Kai Zheng, and Xuanhao Chen

Session 12 Recommendation 1

Session chair: Tiejun Qian

Thursday, April 25, 2019 10:00 – 12:00 room number 2

1. AdaCML: Adaptive Collaborative Metric Learning for Recommendation
Tingting Zhang, Pengpeng Zhao, Yanchi Liu, Jiajie Xu, Junhua Fang, Lei Zhao, Victor Sheng, and Zhiming Cui
2. Adaptive Attention-Aware Gated Recurrent Unit for Sequential Recommendation
Anjing Luo, Pengpeng Zhao, Yanchi Liu, Jiajie Xu, Zhixu Li, Lei Zhao, Victor Sheng, and Zhiming Cui
3. Attention and Convolution Enhanced Memory Network for Sequential Recommendation
Jian Liu, Pengpeng Zhao, Yanchi Liu, Jiajie Xu, Junhua Fang, Lei Zhao, Victor Sheng, and Zhiming Cui
4. Attention-based Neural Tag Recommender System
Jiahao Yuan, and Xiaoling Wang
5. Density Matrix based Preference Evolution Networks for E-commerce Recommendation
Panpan Wang, Zhao Li, Xuming Pan, Donghui Ding, Xia Chen, and Yuexian Hou
6. Multi-Source Multi-Net Micro-Video Recommendation with Hidden Item Category Discovery
Jingwei Ma, Wen Jiahui, Mingyang Zhong, Weitong Chen, Xiaofang Zhou, and Jadwiga Indulska

Session 13 Social network

Session chair: Pruet Boonma

Thursday, April 25, 2019 10:00 – 12:00 room number 3

1. Structured Spectral Clustering of PurTree Data
Xiaojun Chen
2. Social network Dynamic stochastic block model with scale-free characteristic for temporal complex networks
Xunxun Wu, Tianpeng Li, Wenjun Wang, and Pengfei Jiao
3. In Good Company: Efficient Retrieval of the Top-k Most Relevant Event-Partner Pairs
Dingming Wu, Yi Zhu, and Christian Jensen
4. Local Experts Finding across Multiple Social Networks
Yuliang Ma, Ye Yuan, Yishu Wang, Guoren Wang, Delong Ma, and Pengjie Cui
5. SBRNE: An Improved Unified Framework for Social and Behavior Recommendations with Network Embedding
Weizhong Zhao, Huifang Ma, Zhixin Li, Xiang Ao, and Ning Li
6. User Intention-based Document Summarization on Heterogeneous Sentence Networks
Hsiu Yi Wang, Jia Wei Chang, and Jen Wei Huang

Session 14 Spatio-temporal

Session chair: Yong Zhang

Thursday, April 25, 2019 13:30 – 15:30 room number 1

1. A Frequency-aware Spatio-Temporal Network for Traffic Flow Prediction
Shunfeng Peng, Yanyan Shen, Yanmin Zhu, and Yuting Chen
2. Efficient Algorithms for Solving Aggregate Keyword Routing Problems
Qize Jiang, Weiwei Sun, Baihua Zheng, and Kunjie Chen
3. Perceiving Topic Bubbles: Local Topic Detection in Spatio-temporal Tweet Stream
Junsha Chen, Cong Xue, Neng Gao, Daren Zha, and Chenyang Tu
4. Real-Time Route Planning and Online Order Dispatch for Bus-Booking Platforms
Hao Zhou, Yucen Gao, Xiaofeng Gao, and Guihai Chen
5. STL: Online Detection of Taxi Trajectory Anomaly based on Spatial-Temporal Laws
Bin Cheng, Shiyong Qian, Jian Cao, Guangtao Xue, Jiadi Yu, Yanmin Zhu, Minglu Li, and Tao Zhang

Session 15 Recommendation 2

Session chair: Pree Thiengburanathum

Thursday, April 25, 2019 13:30 – 15:30 room number 2

1. Incorporating Task-oriented Representation in Text Classification
Xue Lei, Yi Cai, Jingyun Xu, and Da Ren
2. Music Playlist Recommendation with Long Short-Term Memory
Huiping Yang, Yan Zhao, Jinfu Xia, Bin Yao, Min Zhang, and Kai Zheng
3. Online Collaborative Filtering with Implicit Feedback
Jianwen Yin, Chenghao Liu, Jundong Li, Bing Tian Dai, Yun Chen Chen, Min Wu, and Jianling Sun
4. Subspace Ensemble-based Neighbor User Searching for Neighborhood-based Collaborative Filtering
Li Zhang, and Zepeng Li
5. Towards Both Local and Global Query Result Diversification
Ming Zhong, Cheng Huanyu, Ying Wang, Yuanyuan Zhu, Tiejun Qian, and Jianxin Li

Session 16 Privacy & Graph

Session chairs: Chih-Ya Shen and Keng-Pei Lin

Thursday, April 25, 2019 13:30 – 15:30 room number 3

1. Efficient Local Search for Minimum Dominating Sets in Large Graphs
Yi Fan, Yongxuan Lai, Chengqian Li, Longin Jan Latecki, Nan Li, Jun Zhou, Zongjie Ma, and Kaile Su
2. Multi-level Graph Compression for Fast Reachability Detection
Shikha Anirban, Junhu Wang, and Saiful Islam
3. Multiple Privacy Regimes Mechanism For Local Differential Privacy
Ye Yutong, and Zhang Ming
4. Privacy Preserving Elastic Stream Processing with Clouds using Homomorphic Encryption
Aroscha Rodrigo, Miyuru Dayarathna, and Sanath Jayasena
5. Select the Best for Me: Privacy-preserving Polynomial Evaluation Algorithm over Road Network
Wei Song, Chengliang Shi, Yuan Shen, and Zhiyong Peng

Poster 1

Tuesday, April 23, 2019 13:30 – 15:30 and Wednesday, April 24, 2019 16:00 – 18:00 at poster area.

1. Deletion Robust k-Coverage Queries
Xingnan Huang, and Jiping Zheng
2. Episodic Memory Network with Self-Attention for Emotion Detection
Jiangping Huang, Zhong Lin, Xin Liu, and Xiaorui Huang
3. Detecting Suicidal Ideation with Data Protection in Online Communities
Shaoxiong Ji, Guodong Long, Shirui Pan, Tianqing Zhu, Jing Jiang, and Sen Wang
4. Hierarchical Conceptual Labeling
Haiyun Jiang, Cengguang Zhang, Yanghua Xiao, Deqing Yang, Jiaqing Liang, Jingping Liu, Jindong Chen, Chao Wang, Bin Liang, Chenguang Li, and Wei Wang
5. Anomaly Detection in Time-Evolving Attributed Networks
Luguo Xue, Minnan Luo, Zhen Peng, Jundong Li, Yan Chen, and Jun Liu
6. A Multi-task Learning Framework for Automatic Early Detection of Alzheimer's
Nan Xu, Yanyan Shen, and Yanmin Zhu
7. Top-k Spatial Keyword Query with Typicality and Semantics
Xiangfu Meng, Xiaoyan Zhang, Quanguai Zhang, and Pan Li
8. Align Reviews with Topics in Attention Network for Rating Prediction
Yile Liang, Tiejun Qian, and Huilin Yu
9. PSMSp: A Parallelized Sampling-based Approach for Mining Top-k Sequential Patterns in Database Graphs
Mingtao Lei, Xi Zhang, Jincui Yang, and Binxing Fang
10. Value-Oriented Ranking of Online Reviews Based on Reviewer-influenced Graph
Yiming Cao, Lizhen Cui, and Wei He
11. Ancient Chinese Landscape Painting Composition Classification by Using Semantic Variational Autoencoder
Bo Yao, Qian Zheng Ji, Xiangdong Zhou, Yue Pang, and Manliang Cao
12. ARNN: An Attention-Based Recurrent Neural Network framework for Knowledge Base Reasoning
Qi Wang, Yun Xiong, and Yangyong Zhu

13. Learning Time-Aware Distributed Representations of Locations from Spatio-Temporal Trajectories
Huaiyu Wan, Fuchen Li, Shengnan Guo, Zhong Cao, and Youfang Lin
14. Hyper2vec: Biased Random Walk for Hyper-Network Embedding
Jie Huang, Chuan Chen, Fanghua Ye, Jiajing Wu, Zibin Zheng, and Guohui Ling
15. Privacy-preserving and dynamic spatial range aggregation query processing in wireless sensor networks
Lisong Wang, Zhenhai Hu, and Liang Liu
16. Online Optimized Product Quantization
Chong Liu, and Defu Lian
17. Adversarial Discriminative Denoising for Distant Supervision Relation Extraction
Bing Liu, Huan Gao, Guilin Qi, Shangfu Duan, Tianxing Wu, and Meng Wang
18. Nonnegative Spectral Clustering for Large-Scale Semi-Supervised Learning
Weibo Hu, Chuan Chen, Fanghua Ye, Zibin Zheng, and Guohui Ling
19. Distributed PARAFAC Decomposition Method based on In-Memory Big Data System
Hye Kyung Yang, and Hwan Seung Yong
20. GPU-Accelerated Dynamic Graph Coloring
Ying Yang, Yu Gu, Chuanwen Li, Changyi Wan, and Ge Yu
21. Relevance-based Entity Embedding
Weixin Zeng, Xiang Zhao, Jiuyang Tang, Jinzhi Liao, and Chang Dong Wang
22. An Iterative Map-Trajectory Co-Optimisation Framework Based on Map-Matching and Map Update
Pingfu Chao, Wen Hua, and Xiaofang Zhou
23. Exploring Regularity in Traditional Chinese Medicine Clinical Data Using Heterogeneous Weighted Networks Embedding
Chunyang Ruan, Xintian Chen, Yun Yang, Ye Wang, and Yanchun Zhang
24. AGREE: Attentive Tour Group Recommendation with Multi-Modal Data
Fang Hu, Xiuqi Huang, Xiaofeng Gao, and Guihai Chen
25. Learning to Exploit Long-term Relational Paths for Entity Alignment
Lingbing Guo, Zequn Sun, Qingheng Zhang, and Wei Hu

26. Random Decision DAG: An Entropy Based Compression Approach for Random Forest
Xin Liu, Xiao Liu, Fan Yang, Yongxuan Lai, and Yifeng Zeng
27. Generating Behavior Features for Cold-Start Spam Review Detection
Tieyun Qian, Xiaoya Tang, and Zhenni You
28. TCL: Tensor-CNN-LSTM for Travel Time Prediction with Sparse Trajectory Data
Yibin Shen, Jiaxun Hua, Cheqing Jin, and Dingjiang Huang
29. A Semi-supervised Classification Approach for Multiple Time-varying Networks with Total Variation
Yuzheng Li, Chuan Chen, Fanghua Ye, Zibin Zheng, and Guohui Ling
30. Multidimensional Skylines Over Streaming Data
Karim Alami, and Sofian Maabout
31. A domain adaptation approach for multistream classification
Yue Xie, Jingjing Li, Mengmeng Jing, Ke Lu, and Zi Huang
32. Gradient Boosting Censored Regression for Winning Price Prediction in Real-Time Bidding
Piyush Paliwal, and Oleksii Renov
33. Modeling Graph Operators over Large Datasets
Tasos Bakogiannis, Ioannis Giannakopoulos, Dimitrios Tsoumakos, and Nectarios Koziris
34. Deep Sequential Multi-task Modeling for Next Check-in Time and Location Prediction
Wenwei Liang, Wei Zhang, and Xiaoling Wang

Poster 2

Tuesday, April 23, 2019 16:00 – 18:00 and Wednesday, April 24, 2019 10:00 – 12:00 at poster area.

1. SemiSync: Semi-supervised Clustering by Synchronization
Zhong Zhang, Didi Kang, Chongming Gao, and Junming Shao
2. Neural Review Rating Prediction with Hierarchical Attentions and Latent Factors
Hongtao Liu, Xianchen Wang, Peiyi Wang, Fangzhao Wu, Pengfei Jiao, and Wenjun Wang
3. MVS-match: An Efficient Subsequence Matching Approach Based on the Series Synopsis
Kefeng Feng, Jiaye Wu, Peng Wang, Ningting Pan, and Wei Wang
4. Spatial-Temporal Recommendation for On-demand Cinemas
Taofeng Xue, Beihong Jin, Beibei Li, Kunchi Liu, Qi Zhang, and Sihua Tian
5. Finding the key influences on the house price by Finite Mixture Model based on the real estate data in Changchun
Xin Xu, Zeyu Huang, Jingyi Wu, Yanjie Fu, Na Luo, Weitong Chen, and Minghao Yin
6. Semi-supervised Clustering with Deep Metric Learning
Xiaocui Li, Hongzhi Yin, Ke Zhou, Hongxu Chen, Shazia Sadiq, and Xiaofang Zhou
7. Spatial Bottleneck Minimum Task Assignment with Time-delay
Long Li, Jingzhi Fang, Bowen Du, and Weifeng Lv
8. SWR: Using Windowed Pre-randomization to Achieve Fast and Balanced Heuristic for Streaming Graph Partitioning
Jie Wang, and Dagang Li
9. A Mimic Learning Method for Disease Risk Prediction with Incomplete Initial Data
Lin Yue, Haonan Zhao, Yiqin Yang, Dongyuan Tian, Xiaowei Zhao, and Minghao Yin
10. Hospitalization Behavior Prediction Based on Attention and Time Adjustment Factors in Bidirectional LSTM
Lin Cheng, Yongjian Ren, Kun Zhang, Li Pan, and Yuliang Shi
11. Modeling Item Category for Effective Recommendation
Bo Song, Yi Cao, Weike Pan, and Congfu Xu
12. Distributed Reachability Queries on Massive Graphs
Tianming Zhang, Yunjun Gao, Congzheng Li, Wei Guo, and Qiang Zhou

13. Edge-Based Shortest Path Caching in Road Networks
Detian Zhang, An Liu, Gaoming Jin, and Qing Li
14. Extracting Definitions and Hypernyms with a Two-Phase Framework
Yifang Sun, Shifeng Liu, Wei Wang, and Yufei Wang
15. Tag Recommendation by Word-Level Tag Sequence Modeling
Xuewen Shi
16. A New Statistics Collecting Method with Adaptive Strategy
Jintao Gao, Wenjie Liu, Zhanhuai Li, Hongtao Du, and Ouya Pei
17. Word Sense Disambiguation with Massive Contextual Texts
Ya Fei Liu, and Jinmao Wei
18. Learning DMEs from Positive and Negative Examples
Yeting Li, Chunmei Dong, and Haiming Chen
19. Serial and Parallel Recurrent Convolutional Neural Networks for Biomedical Named Entity Recognition
Qianhui Lu, Yunlai Xu, Runqi Yang, Ning Li, and Chongjun Wang
20. DRGAN: A GAN-based Framework for Doctor Recommendation in Chinese On-line QA Communities
Bing Tian, Yong Zhang, Xinhuan Chen, Chunxiao Xing, and Chao Li
21. Attention-based Abnormal-Aware Fusion Network for Radiology Report Generation
Xiancheng Xie, Yun Xiong, Philip S Yu, Yangyong Zhu, and Kangan Li
22. LearningTour: A Machine Learning Approach for Tour Recommendation based on Users' Historical Travel Experiences
Zhaorui Li, Yuanning Gao, Xiaofeng Gao, and Guihai Chen
23. TF-Miner: Topic-specific Facet Mining by Label Propagation
Zhaotong Guo, Bifan Wei, Jun Liu, and Bei Wu
24. Fast Raft Replication for Transactional Database Systems over Unreliable Networks
Jinwei Guo, Peng Cai, Huan Zhou, Weining Qian, and Aoying Zhou
25. Parallelizing Big De Bruijn Graph Traversal for Genome Assembly on GPU Clusters
Shuang Qiu, Zonghao Feng, and Qiong Luo

26. Deep Representation Learning of Activity Trajectory Similarity Computation
Yifan Zhang, An Liu, Yanan Zhang, Jiajie Xu, Mingjun Xiao, and Qing Li
27. GScan: Exploiting Sequential Scans for Subgraph Matching
Zhiwei Zhang, Hao Wei, Jianliang Xu, and Byron Choi
28. Diversified Top-K Special-Interest-Group Detection over Attributed Graphs
Wei Li, Lijun Chang, Xuemin Lin, and Lu Qin
29. SIMD Accelerates the Probe Phase of Star Joins in Main Memory Databases
Zhuhe Fang, Zeyu He, Jiajia Chu, and Chuliang Weng
30. A Deep Recommendation Model Incorporating Adaptive Knowledge-based Representations
Chenlu Shen, Deqing Yang, and Yanghua Xiao
31. BLOMA: Explain Collaborative Filtering via Boosted Local Rank-One Matrix Approximation
Chongming Gao, Shuai Yuan, Zhong Zhang, Hongzhi Yin, and Junming Shao
32. Spatiotemporal-Aware Region Recommendation with Deep Metric Learning
Hengpeng Xu, Zhang Yao, Jinmao Wei, Zhenglu Yang, and Jun Wang
33. On the Impact of the Length of Subword Vectors on Word Embeddings
Xiangrui Cai
34. Privacy Preserving Web Services QoS Prediction Using Decentralized Matrix Factorization
Jia Peng, An Liu, Shushu Liu, Guanfeng Liu, Pengpeng Zhao, and Lei Zhao
35. Using Dilated Residual Network to Model Distant Supervision Relation Extraction
Lei Zhan, Yan Yang, Pinpin Zhu, Liang He, and Zhou Yu
36. Modeling More Globally: A Hierarchical Attention Network via Multi-Task Learning for Aspect-Based Sentiment Analysis
Xiangying Ran, Yuanyuan Pan, Wei Sun, and Chongjun Wang
37. A Sparse Matrix-based Join for SPARQL Query Processing
Xiaowang Zhang, Mingyue Zhang, Peng Peng, Jiaming Song, Zhiyong Feng, and Lei Zou
38. Change Point Detection for Streaming High-Dimensional time series
Masoomeh Zamani

Demo

Wednesday, April 24, 2019 13:30 – 15:30 at room 4.

1. Distributed Query Engine for Multiple-Query Optimization over Data Stream
Junye Yang, Yong Zhang, Jin Wang, and Chunxiao Xing
2. Adding Value by Combining Business and Sensor Data: An Industry 4.0 Use Case
Guenter Hesse, Christoph Matthies, Werner Sinzig, and Matthias Uflacker
3. AgriKG: An Agricultural Knowledge Graph and Its Applications
Chen Yuanzhe, and Ming Gao
4. KGVis: An Interactive Visual Query Language for Knowledge Graphs
Qiang Fu, Xin Wang, Jianqiang Mei, Jianxin Li, and Yajun Yang
5. OperaMiner: Extracting Character Relations from Opera Scripts using Deep Neural Networks
Xujian Zhao
6. GparMiner: A System to mine Graph Pattern Association Rules
Xin Wang, Yang Xu, Ruocheng Zhao, and Junjie Lin
7. A Data Publishing System Based on Privacy Preservation
Zhihui Wang, and Yun Zhu
8. Privacy as a Service: Publishing Data and Models
Ashish Dandekar, Debabrota Basu, Thomas Kister, Stéphane Bressan, Geong Sen Poh, and Jia Xu
9. Dynamic Bus Route Adjustment Based on Hot Bus Stop Pair Extraction
Liu Jiaye
10. DHDSearch: A Framework for Batch Time Series Searching on MapReduce
Zhongsheng Li, QiuHong Li, and Wei Wang
11. Bus Stop Refinement based on Hot Spot Extraction
Yilian Xin
12. Adaptive Transaction Scheduling for Highly Contended Workloads
Jixin Wang, Jinwei Guo, Huan Zhou, Peng Cai, and Weining Qian
13. IMOptimizer: An Online Interactive Parameter Optimization System based on Big Data
Zhiyu Liang, Hongzhi Wang, Jianzhong Li, and Hong Gao

Tutorials

1. Deep learning for Healthcare Data Processing
Guodong Long, and Weitong Chen
Tuesday, April 23, 2019 13:30 – 15:30 at room 3
2. Knowledge Graph Data Management
Xin Wang
Tuesday, April 23, 2019 16:00 – 18:00 at room 3
3. Cohesive Subgraphs with Hierarchical Decomposition on Big Graphs
Wenjie Zhang
Wednesday, April 24, 2019 10:00 – 12:00 at room 3
4. Enterprise Knowledge Graph from Specific Business Task to Enterprise Knowledge Management
Rong Duan
Wednesday, April 24, 2019 13:30 – 15:30 at room 3
5. Tracking User Behaviours: Laboratory-Based and In-The-Wild User Studies
Gianluca Demartini
Wednesday, April 24, 2019 16:00 – 18:00 at room 3
6. Mining Knowledge Graphs for Vision Tasks
Xiaojun Chang
Thursday, April 25, 2019 10:00 – 12:00 at room 4