The 9th IEEE International Conference on Big Knowledge Agenda

Saturday, November 17, 2018			
7:00 am to 12:00 am	Registration Hotel Lobby		
9:00 am to 10:00 am	Keynote 1: Ruqian Lu, Chinese Academy of Sciences A Preliminary Study on Big Knowledge Chair: Xindong Wu, Room: Aquarius 1 of Resorts World Convention Centre, level 1		
10:00 am to 10:20 am	Coffee Break		
10:20 am to 12:00 pm	Session 1: Knowledge Graphs Chair: Yin Li Room: Aquarius 1 of Resorts World Convention Centre,	Session 2-1: Neural Networks and Deep Learning Chair: Siu Cheung Hui Room: Aquarius 2 of Resorts World Convention Centre	Session 3: Representation Learning Chair: Yan Liu Room: Aquarius 3 of Resorts World Convention Centre
12:00 pm to 14:00 pm	Lunch Break		
14:00 pm to 15:40 pm	Session 4: Graph Mining and Knowledge Platforms Chair: Maximilian Leodolter Room: Aquarius 1	Session 2-2: Neural Networks and Deep Learning Chair: Yixin Chen Room: Aquarius 2	Session 5-1: Machine Learning and its Applications Chair: Dianlong You Room: Aquarius 3
15:40 pm to 16:10 pm	Coffee Break		
16:10 pm to 17:50 pm	Session 6: Social Networks Chair: Xin Ding Room: Aquarius 1	Session 7: Multi-label Learning Chair: Yue Wang Room: Aquarius 2	Session 5-2: Machine Learning and its applications Chair: Xiaofeng He Room: Aquarius 3
18:30 pm to 20:30 pm	Banquet		

Sunday, November 18, 2018			
9:00 am to 10:00 am	ICDM Keynote: On Big Wisdom by Xindong Wu Main Stage East Ballroom		
10:00 am to 10:20 am	Coffee Break		
10:20 am to 12:00 pm	Session 8-1: Data Analysis and Applications Chair: Mark Crowley Room: Aquarius 1	Session 8-2: Data Analysis and Applications Chair: Ryan Koh Room: Aquarius 2	Session 9: Pattern Analysis Chair: Min Gao Room: Aquarius 3
12:00 pm to 14:00 pm	Lunch Break		
14:00 pm to 15:30 pm	Panel 2: Knowledge Engineering with Big Data Chair: Xindong Wu Room: Aquarius 1		

Session 1: Knowledge Graphs. Saturday, November 17, 2018, 10:20 am to 12:00 pm

- Graph Embedding based Query Construction over Knowledge Graphs
  Ruijie Wang, Meng Wang, Jun Liu, Siyu Yao, and Qinghua Zheng
- Detecting Overlapping Communities in Knowledge Graphs: A Density Optimization Based Approach
  Zunying Qin, Bo She, Jingru Cui, and Guodong Li
- DBkWik: A Consolidated Knowledge Graph from Thousands of Wikis
  Sven Hertling and Heiko Paulheim
- Stochastic Optimization for Market Return Prediction Using Financial Knowledge Graph
  Xiaoyi Fu, Xinqi Ren, Ole J. Mengshoel, and Xindong Wu
- Confidence-Aware Negative Sampling Method for Noisy Knowledge Graph Embedding
  Yingchun Shan, Chenyang Bu, Xiaojian Liu, Shengwei Ji, and Lei Li

Session 2-1: Neural networks and Deep learning. Saturday, November 17, 10:20 am to 12:00 pm

- Deep Co-investment Network Learning for Financial Assets
  Yue Wang, Chenwei Zhang, Shen Wang, Philip Yu, Lu Bai, and Lixin Cui
- DMTMV: A Unified Learning Framework for Deep Multi-Task Multi-View Learning
  Yifeng Wu, Dechuan Zhan, and Yuan Jiang
- Biometric Recognition through Eye Movements using a Recurrent Neural Network
  Shaohua Jia, Do Hyong Koh, Amanda Seccia, Pasha Antonenko, Richard Lamb, Andreas Keil, Matthew Schneps, and Marc Pomplun
- Sentiment and Semantic Deep Hierarchical Attention Neural Network for fine grained News Classification
  Sri Teja Allaparthi, Ganesh Yaparla, and Vikram Pudi
- Forecast of Solar Energy Production -- A Deep Learning Approach
  Rui Zhang, Minwei Feng, Wei Zhang, Siyuan Lu, and Fei Wang

Session 3: Representation Learning. Saturday, November 17, 10:20 am to 12:00 pm

- Semi-Supervised Representation Learning: Transfer Learning with Manifold Regularized Auto-encoders

  Yi Zhu, Xuegang Hu, Yuhong Zhang, and Peipei Li
- Robust Lifelong Multi-task Multi-view Representation Learning

  Gan Sun, Yang Cong, Jun Li, and Yun Fu
- Chinese Entity Relation Extraction Based on Syntactic Features

  Yishun Jiang, Gongqing Wu, Chenyang Bu, and Xuegang Hu
- Word Embedding Representation with Synthetic Position and Context Information for Relation Extraction

  Yunzhou Shi,Yujiu Yang, and Yi Liu
- Short-text Lexical Normalisation on Industrial Log Data

  Michael Stewart, Wei Liu, Rachel Cardell-Oliver, and Rui Wang

Session 4: Graph Mining and Knowledge Platforms. Saturday, November 17, 14:00 pm to 15:40 pm

- Recommending Long-Tail Items Using Extended Tripartite Graphs

  Andrew Luke, Joseph Johnson, and Yiu-Kai Ng
- Joint Embedding of Meta-Path and Meta-Graph for Heterogeneous Information Networks

  Lichao Sun
- Snapshot Visualization of Complex Graphs with Force-directed Algorithms

  Se-Hang Cheong and Yain-Whar Si
- Galaxy: Towards Scalable and Interpretable Explanation on High-dimensional and Spatio-Temporal Correlated Climate Data

  Yong Zhuang
- KADetector: Automatic Identification of Key Actors in Online Hack Forums Based on Structured Heterogeneous Information Network

Yiming Zhang, Yujie Fan, Yanfang Ye, Liang Zhao, Jiabin Wang, Qi Xiong, and Fudong Shao

Session 2-2: Neural networks and Deep learning. Saturday, November 17, 14:00 pm to 15:40 pm

- On the Learning Capabilities of Recurrent Neural Networks: A Cryptographic Perspective
  Shivin Srivastava and Ashutosh Bhatia
- An Out-of-the-box Full-network Embedding for Convolutional Neural Networks
  Dario Garcia-Gasulla, Armand Vilalta, Ferran Parés, Eduard Ayguadé, Jesus Labarta, Ulises Cortés, Toyotaro Suzumura
- Deep Embedding Logistic Regression
  Muhan Zhang and Yixin Chen
- Neural networks for predicting the output of wind flow simulations over complex topographies
  Michael Mayo, Sarah Wakes, and Chris Anderson
- Discriminative Graph Autoencoder
  Haifeng Jin, Qingquan Song, and Xia Hu

Session 5-1: Machine Learning and its Applications. Saturday, November 17, 14:00 pm to 15:40 pm

- Discovering IMRaD Structure with Different Classifiers
  Sergio Ribeiro
- Online Feature Selection for Streaming Features with High Redundancy Using Sliding-window Sampling
  Dianlong You, Xindong Wu, Limin Shen, Zhen Chen, Chuan Ma, and Song Deng
- TL-PC: An Interpretable Causal Relationship Networks on Older Adults Fall Influence Factors
  Wei Ding, Kui Yu, Suzanne G. Leveille, and Pin Chen
- Risk Factor Analysis of Bone Mineral Density Based on Feature Selection in Type 2 Diabetes

Wei Wang, Bingbing Jiang, Shandong Ye, and Liting Qian

- A Machine Learning Approach to Detecting Start Reading Location of eBooks

  Sravan Babu, Sriraghavendra Ramaswamy, and Gururaj Narayanan

Session 6: Social Networks. Saturday, November 17, 16:10 pm to 17:50 pm

- Events Detection in Temporally Evolving Social Networks

  S.A.S.Rajita Bommakanti and Subhrakanta Panda

- Decomposing TripAdvisor: Detecting Potentially Fraudulent Hotel Reviews in the Era of Big Data

  Christopher Harris

- Dynamic Overlapping Community Discovery Based on Core Nodes

  Yan Liu and Hong Yu

- LINKSOCIAL: Linking User Profiles Across Multiple Social Media Platforms

  Vishal Sharma and Curtis Dyreson

- Short-attention Mechanism for Generative Dialogue System

  Pengda Si,Yujiu Yang, and Yi Liu

Session 7: Multi-label Learning. Saturday, November 17, 16:10 pm to 17:50 pm

- Multi-Target Core Network-based Networked Multi-label Classification

  Lei Li, Fang Zhang, Di Ma, Chuan Zhou, and Xuegang Hu

- Generic Embedded Semantic Dictionary for Robust Multi-label Classification

  Zhengming Ding, Ming Shao, Sheng Li, and Yun Fu

- Imbalanced Networked Multi-Label Classification with Active Learning

  Ruilong Zhang, Lei Li, Yuhong Zhang, and Chenyang Bu

- Multi-label Learning Based On Label-specific Feature Extraction

  Ting Nie, Jing Zhang, PeiPei Li, Yu Li, and Xiao Sun

- Learning Discrimination Specific, Self-Collaborative and Nonlinear Model

DImche Kostadinov, Behrooz Razeghi, Svyatoslav Voloshynovskyy, and Sohrab Ferdowsi

Session 5-2: Machine Learning and its Applications. Saturday, November 17, 16:10 pm to 17:50 pm

- Bayesian Inference for Survival Analysis in Private Setting

  Tan Thong Nguyen and Siu Cheung Hui

- The k-means forest classifier for high dimensional data

  Zizhong Chen, Xin Ding, Shuyin Xia, and Baiyun Chen

- Reinforcement Learning Based Decision Tree Induction over Data Streams with Concept Drifts

  Christopher Blake and Eirini Ntoutsi

- Depth Recovery from a single image based on L0 Gradient Minimization

  Fengyun Cao and Fei Xie

- Weight-Agnostic Hierarchical Stick-Breaking Process

  Mrinal Kanti Das and Chiranjib Bhattacharyya

Session 8-1: Data Analysis and Applications. Sunday, November 18, 2018, 10:20 am to 12:00 am

- Principal Sample Analysis for Data Reduction

  Benyamin Ghojogh and Mark Crowley

- Fast approximate hubness reduction for large high-dimensional data

  Roman Feldbauer, Maximilian Leodolter, Claudia Plant, and Arthur Flexer

- Opponent Resource Prediction in StarCraft Using Imperfect Information

  William Hamilton and M. Omair Shafiq

- Prediction of Aluminum Electrolysis Superheat Based on Improved Relative Density Noise Filter SMO

  Yunsheng Liu, Shuyin Xia, Hong Yu, Yueguo Luo, Baiyun Chen, Kang Liu, and Guoyin Wang

- Matrix Profile XIII: Time Series Snippets: A New Primitive for Time Series Data Mining
  Shima Imani, Frank Madrid, Wei Ding, Scott Crouter, and Eamonn Keogh

Session 8-2: Data Analysis and Applications. Sunday, November 18, 10:20 am to 12:00 am

- Recommendation with generalized logistic transformation
  Zhuolin Fu, Fan Min, and Hengru Zhang
- Mixed-copula VaR for Portfolio Risk Evaluation
  Lechuan Yin, Jiebin Chen and Zhaorong Lai
- A Standardized, and Extensible Framework for Comparative Analysis of Quantitative Finance Algorithms – An Open-Source Solution, and Examples of Baseline Experiments with Discussion
  Alasdair Macindoe and Ognjen Arandjelovic
- Don't Do Imputation: Dealing with Informative Missing Values in EHR Data Analysis
  Jia Li, Mengdie Wang, Michael S.Steinbach, Vipin Kumar, and Gyorgy J. Simon

Session 9: Pattern analysis. Sunday, November 18, 10:20 am to 12:00 am

- Automatic Detection of Warped Patterns in Time Series: The Caterpillar Algorithm
  Maximilian Leodolter, Norbert Braendle, and Claudia Plant
- Stance Detection with Target and Target towards Attention
  Wenqiang Gao, Yujiu Yang, and Yi Liu
- State Transition Pattern with Periodic Wildcard Gaps
  Zhiheng Zhang, Xindong Wu, Wenjie Zhai, Fan Min, Rongping Shen, and Shengchao Zeng
- Nonlinear Dimensionality Reduction with Judicial Document Learning
  Xiaofan Fang and Xianghao Zhao
- Data Fusion of Multiple Spatio-Temporal Data Sources for Improved Localisation in Cellular Network
  Shixin Luo and Ying Li