

KSEM 2017 Program

19-20 August, 2017

Building 80 (Swanston Academic Building) at RMIT University City Campus.

Address: 80/445 Swanston St, Melbourne VIC 3000

Day 1	August 19, 2017		
08:30-08:50	Registration		
08:50-09:00	Opening (Room 80.10.17)		
09:00-10:00	Keynote 1: Professor Geoff Webb (Room 80.10.17)		
10:00-10:30	Coffee Break		
10:30-12:30	Session A1: Text Mining and Document Analysis Session chair: Chiaki Sakama (Room 80.11.06)	Session B1: Knowledge Engineering Session chair: Chenghai Tao (Room 80.11.07)	Session C1: Knowledge Management Session chair: Hung Kwok Wai (Room 80.11.08)
12:30-14:00	Lunch		
14:00-16:00	Session A2: Knowledge Representation and Reasoning Session chair: Li Li (Room 80.11.06)	Session B2: Formal Semantics and Fuzzy Logic Session chair: Zili Zhang (Room 80.11.07)	Session C2: Knowledge Integration Session chair: Hiroyuki Kido (Room 80.11.08)
16:00-16:30	Coffee Break		
16:30-17:30	Session A3: Text Mining and Document Analysis Session chair: Minghua Zhao (Room 80.11.06)	Session B3: Formal Semantics and Fuzzy Logic Session chair: Stewart Massie (Room 80.11.07)	Session C3: Recommendation Systems Session chair: Gang Li (Room 80.11.08)

Day 2	August 20, 2017		
08:30-09:00	Registration		
09:00-10:00	Keynote 2: Professor Zhi-Hua Zhou (Room 80.10.17)		
10:00-10:30	Coffee Break		
10:30-12:30	Session A4: Knowledge Representation and Reasoning Session chair: Ge Li (Room 80.11.06)	Session B4: Knowledge Retrieval Session chair: Man Lan (Room 80.11.07)	Session C4: Recommendation Systems Session chair: Shaowu Liu (Room 80.11.08)
12:30-14:00	Lunch		
14:00-16:00	Session A5: Knowledge Engineering Session chair: Tianjian Luo (Room 80.11.06)		Session C5: Recommendation Systems Session chair: Weiwei Li (Room 80.11.08)
16:00-16:30	Coffee Break		
16:30-17:30	Closing KSEM2018 Announcement & Best Papers Award (Room 80.10.17)		

Keynote 1: Geoff Webb

Learning from non-stationary distributions

Abstract:

The world is dynamic – in a constant state of flux – but most learned models are static. Models learned from historical data are likely to decline in accuracy over time. This talk presents theoretical tools for analyzing non-stationary distributions and some insights that they provide. Shortcomings of standard approaches to learning from non-stationary distributions are discussed together with strategies for developing more effective techniques.

Keynote 2: Zhi-Hua Zhou

Some Progress and Perspectives of Machine Learning

Abstract:

In this talk, we will briefly introduce some progress of machine learning, and discuss on some future perspectives. In particular, we will introduce some recent progress of deep learning based on forests rather than neural networks. Then, we will talk about challenges and opportunities introduced by open environment machine learning tasks, and advocate to explore the form of learnware.

Session A1 Text Mining and Document Analysis

Learning Sparse Overcomplete Word Vectors without Intermediate Dense Representations

Yunchuan Chen, Ge Li and Zhi Jin

A Study of Distributed Semantic Representations for Automated Essay Scoring

Cancan Jin, Ben He and Jungang Xu

Weakly Supervised Feature Compression Based Topic Model for Sentiment Classification

Yan Hu, Xiaofei Xu and Li Li

An Effective Gated and Attention-based Neural Network Model for Fine-grained Financial Target-dependent Sentiment Analysis

Mengxiao Jiang, Jianxiang Wang, Man Lan and Yuanbin Wu

Session B1 Knowledge Engineering

Relevant Fact Selection for QA via Sequence Labeling

Yuzhi Liang, Zhu Jia, Yupeng Li, Min Yang and Siu Ming Yiu

Community Outlier based Fraudster Detection

Chenfei Sun, Qingzhong Li, Hui Li, Shidong Zhang and Yongqing Zheng

An efficient three-dimensional reconstruction approach for pose-invariant face recognition based on a single view

Minghua Zhao, Ruiyang Mo, Yonggang Zhao, Zhenghao Shi and Feifei Zhang

Automatically Difficulty Grading Method based on Knowledge Tree

Jin Zhang, Chengcheng Liu, Haoxiang Yang, Fan Feng and Xiaoli Gong

Session C1 Knowledge Management

Balancing Between Cognitive and Semantic Acceptability of Arguments

Hiroyuki Kido and Keishi Okamoto

Discovery of Jump Breaks in Joint Volatility for Volume and Price of High-frequency Trading Data in China

Xiao-Wei Ai, Tianming Hu, Gong-Ping Bi, Cheng-Feng Lei and Hui Xiong

Understanding Knowledge Management in Agile Software Development Practice

Yanti Andriyani, Rashina Hoda and Robert Amor

Improved Knowledge Base Completion by the Path-Augmented TransR Model

Wenhao Huang, Ge Li and Zhi Jin

Session A2 Knowledge Representation and Reasoning

Robust mapping learning for multi-view multi-label classification with missing labels

Weijieying Ren, Lei Zhang, Bo Jiang, Zhefeng Wang, Guangming Guo and Guiquan Liu

Fast subsumption queries for rooted labeled trees

Olivier Carloni

Learning Deep and Shallow Features for Human Activity Recognition

Sadiq Sani, Stewart Massie, Nirmalie Wiratunga and Kay Cooper

Transfer Learning with Manifold Regularized Convolutional Neural Network

Fuzhen Zhuang, Lang Huang, Jia He, Jixin Ma and Qing He

Session B2 Formal Semantics and Fuzzy Logic

A Multi-Objective Attribute Reduction Method in Decision-Theoretic Rough Set Model

Lu Wang, Weiwei Li, Xiuyi Jia and Bing Zhou

A Behavior-based Method for Distinction of Flooding DDoS and Flash Crowds

Degang Sun, Kun Yang, Zhixin Shi and Bin Lv

A Fuzzy Logic Based Policy Negotiation Model

Jieyu Zhan, Xudong Luo, Yuncheng Jiang, Wenjun Ma and Mukun Cao

Session C2 Knowledge Integration

Multi-view Unit Intact Space Learning

Kun-Yu Lin, Chang-Dong Wang, Yu-Qin Meng and Zhi-Lin Zhao

A Novel Blemish Detection Algorithm for Camera Quality Testing

Kun Wang, Kwok-Wai Hung and Jianmin Jiang

Learning To Infer API Mappings From API Documents

Yangyang Lu, Ge Li, Zelong Zhao, Lingfeng Wen and Zhi Jin

Super-resolution for Images with Barrel Lens Distortions

Mei Su, Kwok-Wai Hung and Jianmin Jiang

Session A3 Text Mining and Document Analysis

A Hidden Astroturfing Detection Approach Base On Emotion Analysis

Tong Chen, Noora Hashim ALALLAQ, Wenjia NIU, Yingdi WANG, Xiaoxuan BAI, Jingjing LIU, Yingxiao XIANG, Tong WU and Jiqiang LIU

Leveraging Term Co-occurrence Distance and Strong Classification Features for Short Text Feature Selection

Huifang Ma, Yuying Xing, Shuang Wang and Miao Li

Session B3 Formal Semantics and Fuzzy Logic

f-ALC(D)-LTL: A Fuzzy Spatio-Temporal Description Logic

Haitao Cheng and Zongmin Ma

R-Calculus For The Primitive Statements In Description Logic ALC

Yuhui Wang, Cungen Cao and Yuefei Sui

Session C3 Recommendation Algorithms and Systems

Collaborative Filtering via Different Preference Structures

Shaowu Liu, Na Pang, Guandong Xu and Huan Liu

Collaborative Filtering based on Pairwise user-item Blocking structure(PBCF): A General Framework and its Implementation

Fengjuan Zhang, Jianjun Wu, Jianzhao Qin, Xing Liu and Yongqiang Wang

Session A4 Knowledge Representation and Reasoning

Learning Path Generation Method Based on Migration Between Concepts

Dan Liu, Libo Zhang, Tiejian Luo and Yanjun Wu

Representation Learning of Multiword Expressions with Compositionality Constraint

Minglei Li, Qin Lu and Yunfei Long

Linear Algebraic Characterization of Logic Programs

Chiaki Sakama, Katsumi Inoue and Taisuke Sato

Representation Learning with Entity Topics for Knowledge Graphs

Xin Ouyang, Yan Yang, Liang He, Qin Chen and Jiacheng Zhang

Session B4 Knowledge Retrieval

Mining Schema Knowledge from Linked Data on the Web

Razieh Mehri and Petko Valtchev

Mining Values of User's Missing Attributes via Neural Network

Xiaoxue Li, Yanan Cao, Yanmin Shang, Yanbing Liu, Jianlong Tan and Li Guo

Co-saliency Detection based on Superpixel Clustering

Guiqian Zhu, Yi Ji, Xianjin Jiang, Zenan Xu and Chunping Liu

ARMICA-Improved: A New Approach for Association Rule Mining

Shahpar Yakhchi, Seyed Mohssen Ghafari, Christos Tjortjis and Mahdi Fazeli

Session C4 Recommendation Algorithms and Systems

Trust-aware recommendation in social networks

Yingyuan Xiao, Zhongjing Bu, Ching-Hsien Hsu, Wenxin Zhu and Yan Shen

Connecting Factorization and Distance Metric Learning for Social Recommendations

Junliang Yu, Min Gao, Yuqi Song, Zehua Zhao, Wenge Rong and Qingyu XIONG

A Multifaceted Model for Cross Domain Recommendation Systems

Jianxun Lian, Fuzheng Zhang, Xing Xie and Guangzhong Sun

Exploring Latent Bundles From Sequential Behaviors for Personalized Ranking

Wenli Yu, Li Li, Fan Li, Jinjing Zhang and Fei Hu

Session A5 Knowledge Engineering

Device-free Intruder Sensing Leveraging Fine-grained Physical Layer Signatures

Dali Zhu, Na Pang, Weimiao FENG, Muhmmad AL-KHIZA'AY, and Yuchen MA

MIAC: A Mobility Intention Auto-Completion Model for Location Prediction

Feng Yi, Zhi Li, Hongtao Wang, Weimin Zheng and Limin Sun

A Weighted Non-monotonic Averaging Image Reduction Algorithm

Jiaxin Han and Haiyang Xia

Session C5 Recommendation Algorithms and Systems

Beyond the Aggregation of Its Members-A Novel Group Recommender System From the Perspective of Preference Distribution

Zhiwei Guo, Chaowei Tang, Wenjia Niu, Yunqing Fu, Haiyang Xia and Hui Tang

Cross Domain Collaborative Filtering By Integrating User Latent Vectors of Auxiliary Domains

Xu Yu, Feng Jiang, Miao Yu and Ying Guo

Conference Closing

Announcement of KSEM2018

Best Papers Award