CCF Conference No. CCF-18-TC18-01I

The First CCF International Conference on Artificial Intelligence

(CCF-ICAI 2018)

Conference Program

Host: China Computer Federation (CCF)
Co-Host: CCF Technical Committee on Artificial Intelligence & Pattern Recognition
Organizers: Shandong University, Shandong University of Finance and Economics, University of Jinan, Qilu University of Technology (Shandong Academy of Sciences), Shandong Electronic Chamber of Commerce
Co-Organizers: Shandong Association of Artificial Intelligence, Yangzhou University

Sponsors: Lankloud 联科云 智铀科技 www.wisutech.com Microsoft

August 9-10,2018
Jinan, China

Contents

I. Welcome to CCF-ICAI 2018

The CCF International Conference on Artificial Intelligence (CCF-ICAI) is hosted by China Computer Federation (CCF), and co-hosted by CCF Technical Committee on Artificial Intelligence & Pattern Recognition. The conference aims to provide a leading international forum for researchers, practitioners, and other potential users in artificial intelligence and related fields to share their new ideas, progresses, and achievements.

The first CCF International Conference on Artificial Intelligence (CCF-ICAI 2018, No. CCF-18-TC18-01I) will take place on August 9-10, 2018, in Jinan, China. The conference is organized by Shandong University, Shandong University of Finance and Economics, Shandong Normal University, University of Jinan, Qilu University of Technology (Shandong Academy of Sciences), and Shandong Electronic Chamber of Commerce, with the assistance of Shandong Association of Artificial Intelligence and Yangzhou University. CCF-ICAI 2018 received 82 full submissions. Each submission was reviewed by at least three reviewers. Based on the reviewers' comments, 17 papers were finally accepted for presentation at the conference, with an acceptance rate of 20.7%. The proceedings of CCF-ICAI 2018 are published as a dedicated volume of the Communications in Computer and Information Science (CCIS) Series by Springer, and indexed by EI-Compendex and Scopus.

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IV. Conference Schedule

Date: August 10, 2018

Venue: Great Hall (俱乐部一楼礼堂)

Time	Session	Host
August 5-9	**Registration**	
8:30 am – 8:50 am	**Opening Ceremony** Welcome Speech by General Chair Program Chair Report	Prof. Yang Gao
8:50 am – 9:00 am	**Group Photo**	
9:00 am – 9:50 am	**Keynote Speech**: Recent Advances in Robust Machine Learning by Prof. Masashi Sugiyama	Prof. Jian Yu
9:50 am – 10:20 am	**Morning Break**	
10:20 am – 11:10 am	**Keynote Speech**: NLP: its progress, opportunities and challenges by Dr. Ming Zhou	Prof. Yang Gao
11:10 am – 12:00 am	**Keynote Speech**: Deep Learning: Core Networks, Industry Applications, and Future Directions by Prof. Shuicheng Yan	Prof. Yilong Yin
12:00 am – 2:00 pm	**Lunch Break**	

2:00 pm – 3:20 pm	**Oral Session 1** (in parallel with Poster Session)	Prof. Min-Ling Zhang
3:20 pm – 3:50 pm	**Afternoon Break**	
3:50 pm – 5:10 pm	**Oral Session 2** (in parallel with Poster Session)	Prof. Chaoran Cui
5:10 pm – 5:30 pm	**Closing Ceremony**	Prof. Yilong Yin

1. List of Oral Session 1

#1.1: Unsupervised Maximum Margin Incomplete Multi-view Clustering

Hong Tao, Chenping Hou , Dongyun Yi, Jubo Zhu

#1.2: Multi-View K-means Clustering with Bregman Divergences

Yan Wu, Liang Du, Honghong Cheng

#1.3: Learning Safe Graph Construction from Multiple Graphs

De-Ming Liang, Yu-Feng Li

#1.4: LSH-based Graph Partitioning Algorithm

Weidong Zhang, Mingyue Zhang

2. List of Oral Session 2

#2.1: Graph Regularized Discriminative Joint Concept Factorization for Data Representation

Xianzhong Long, Cheng Cheng

#2.2: Semi-Supervised Classification of Concept Drift Data Stream based on Local Component Replacement

Keke Qin, Yimin Wen

#2.3: Landmark-Biased Random Walk for Deterministic Planning

Wei Wei, Chuang Li, Wei Liu, Dantong Ouyang

#2.4: Spatial Temporal Topic Embedding: A Semantic Modeling Method for Short Text in Social Network

Congxian Yang, Junping Du, Feifei Kou, Jangmyung Lee

V. Keynote Speakers

Masashi Sugiyama

RIKEN / The University of Tokyo

Recent Advances in Robust Machine Learning

When machine learning systems are deployed in the real-world, robustness against outliers and distribution change is highly important for reliability. In this talk, I will overview our recent advances in robust machine learning to cope with this problem. More specifically, I will introduce (i) an approximate Bayesian inference method based on heavy-tailed models for handling training output outliers, (ii) a variational inference method based on robust divergences for handling training input-output outliers, (iii) a distributionally robust classification method based on weighted empirical risk minimization for handling test input-output distribution shift, and (iv) a neural network training method based on Lipschitz margin maximization for handling test input outliers.

Masashi Sugiyama received the PhD degree in Computer Science from Tokyo Institute of Technology, Japan in 2001. He has been Professor at the University of Tokyo since 2014 and concurrently appointed as Director of RIKEN Center for Advanced Intelligence Project in 2016. His research interests include theory, algorithms, and applications of machine learning. He (co)-authored several books such as Density Ratio Estimation in Machine Learning (Cambridge University Press, 2012), Machine Learning in Non-Stationary Environments (MIT Press, 2012), Statistical Reinforcement Learning (Chapman and Hall, 2015), and Introduction to Statistical Machine Learning (Morgan Kaufmann, 2015). He served as a Program Co-chair and General Co-chair for the Neural Information Processing Systems conference in 2015 and 2016, respectively, and he will be a Program Co-chair for AISTATS2019. Masashi Sugiyama received the Japan Academy Medal in 2017.

Ming Zhou

Assistant Managing Director of Microsoft Research Asia

NLP: its progress, opportunities and challenges

NLP is an important branch of AI, including text analysis, understanding and generation to facilitate the human-computer interaction. NLP consists of the technologies in three aspects. 1) NLP fundamental technologies which address the meaning expression of word, phrase, sentence and document, as well as word breaker, named entity identification, syntactic and semantic analysis. 2) NLP core technologies for machine translation, question answering, information retrieval, chatbot and conversation. 3) NLP+, which is application in various products including search engine, customer service, business intelligence, personal assistant and various vertical sectors such as fiancé, health care, news, law, tourism, education. In last three years, we have witnessed the rapid development based on the support of deep learning and big data. In this presentation, I am going to first give an introduction on the new progress of NLP especially in machine translation, chatbot, reading comprehension and text generation, and then I will share my thoughts on NLP s challenges and opportunities in the future.

Dr. Ming Zhou, Assistant Managing Director of Microsoft Research Asia. He is the president-elect of Association of Computational Linguistics (ACL), the chair of Chinese Information Technology Committee of Chinese Computer Federation. He is also the PhD supervisor of five top universities in China. He obtained his PhD from Harbin Institute of Technology in 1991 where he developed the China's first Chinese-English machine translation system. He then worked at Tsinghua as Post-doc and associate professor in 1991-1999. During 1996-1999, he visited at his sabbatical leave Kodensha Company in Japan, leading the development of Chinese-Japanese machine translation products J-Beijing. He joined Microsoft Research Asia in 1991 to lead its NLP research team which contributed over the last 19 years numerous NLP technologies such as IME, Engkoo Dictionary (later rebranded as Bing dictionary), machine translation, QA, tweet search, Chinese couples, riddle and poetry generation, chatbot engine, with great contribution to MS products like Office, Bing, Windows and Xiaoice. The Engkoo Dictionary was awarded as Wall Street Journal Asian Innovation award. He has 160 publications (including about 70 ACL papers） and more than 50

international patents. In addition to his research, he has actively made significant contribution via various channels of MS programs to the growth of NLP in China. He received “Capital Labor Medal” in 2018.

Shuicheng Yan

National University of Singapore / Qihoo 360 AI Institute

Deep Learning: Core Networks, Industry Applications, and Future Directions

In this talk, I shall introduce two types of neural networks developed by my group members in 360 and NUS, along with other popular networks in computer vision literature. Then I shall introduce their applications for flagship computer vision competitions and industry applications. The talk shall end with discussions on future directions.

Dr. Yan Shuicheng is currently Vice President of 360, Director of 360 AI Institute, China 1000-People Plan Expert, IEEE Fellow, IAPR Fellow and ACM Outstanding Scientist. Dr. Yan's research areas include machine learning, computer vision and multimedia. He has authored/co-authored about 600 technical papers over a wide range of research topics, with Google Scholar citation over 35,000 times and H-index 82. He is ISI Highly-cited Researcher of 2014, 2015 and 2016. His team won 10 times winner or honorable-mention prizes in PASCAL VOC and ILSVRC competitions, along with more than 10 times best (student) paper prizes. In ACM MM, the flagship conference of multimedia area, he won the grand slam with Best Paper Award, Best Student Paper Award, and Best Demo Award.

Ⅶ. Conference Venue

CCF-ICAI 2018, in conjunction with CCDM 2018, will be held at Jinan Nanjiao Hotel in Jinan, China.

Jinan Nanjiao Hotel is a 4-star hotel located in Jinan's scenic southern district, close to the Qianfo Mountain Village and Scenic Spot. Boasting lush grounds landscaped in a traditional Chinese style, and a serene lake, this hotel is perfect for those wanting a peaceful retreat from the bustle of modern life. It takes 15 minutes by car to Jinan Railway Station. Jinan International Airport is about 40 minutes' drive away.

More detailed information can be found at http://ccdm2018.sdufe.edu.cn/hyddhjt.htm.

Ⅷ. Contact Us

Name	Mobile	Duty
Peiguang Lin	18663728839	Overall Arrangement Service
Xiushan Nie	18615427837	Hotel Service
Chaoran Cui	18560132126	Expert Service
Xiaoming Xi	15069056021	Transportation Service
Shanshan Gao	18668933057	Registration and Finance Service
Yajun Zhang	13127107039	Registration and Finance Service