HKBU Computer Science



10 January 2008 @ Hong Kong Baptist University

Pattern Recognition
Networking & Multimedia
Intelligent Informatic
Mobile Positioning Systems
Data Mining
Machine Learning

Top-10 Algorithms in Data Mining

Keynote Talk

Professor Xindong Wu (University of Vermont, USA & Hong Kong Polytechnic University, China)

Introduction

This talk will present the following top-10 data mining algorithms identified at IEEE ICDM '06: C4.5, K-Means, SVM, Apriori, EM, PageRank, AdaBoost, kNN, Naive Bayes, and CART. For each algorithm, we provide a description of the algorithm and discuss its impact and the current and further research on the algorithm.

Biography

Dr. Xindong Wu is a Professor and the Chair of the Department of Computer Science at the University of Vermont, USA, and also a Visiting Chair Professor of Data Mining in the Department of Computing at the Hong Kong Polytechnic University, China. He holds a PhD in Artificial Intelligence from the University of Edinburgh, Britain. His research interests include data mining, knowledge-based systems, and Web information exploration. He has published over 160 refereed papers in these areas in various journals and conferences, including IEEE TKDE, TPAMI, ACM TOIS, DMKD, KAIS, IJCAI, AAAI, ICML, KDD, ICDM, and WWW, as well as 18 books and conference proceedings. He won the IEEE ICTAI-2005 Best Paper Award and the IEEE ICDM-2007 Best Theory/Algorithms Paper Runner Up Award.

Professor Wu is the Editor-in-Chief of the IEEE Transactions on Knowledge and Data Engineering (TKDE, by the IEEE Computer Society), the founder and current Steering Committee Chair of the IEEE International Conference on Data Mining (ICDM), the founder and a current Honorary Editor-in-Chief of Knowledge and Information Systems (KAIS, by Springer), the Founding Chair (2002-2006) of the IEEE Computer Society Technical Committee on Intelligent Informatics (TCII), and a Series Editor of the Springer Book Series on Advanced Information and Knowledge Processing (AI&KP). He was Program Committee Chair for ICDM '03 (the 2003 IEEE International Conference on Data Mining) and Program Committee Co-Chair for KDD-07 (the 13th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining). He is the 2004 ACM SIGKDD Service Award winner, the 2006 IEEE ICDM Outstanding Service Award winner, and a 2005 Chaired Professor in the Cheung Kong (or Yangtze River) Scholars Programme at the Hefei University of Technology sponsored by the Ministry of Education of China and the Li Ka Shing Foundation. He has been an invited/keynote speaker at numerous international conferences including NSF-NGDM'07, PAKDD-07, IEEE EDOC'06, IEEE IEEE/WIC/ACM ICTAI'04, WI'04/IAT'04, SEKE 2002, and PADD-97.

http://www.comp.hkbu.edu.hk/~pgday

Date: 10 Jan 2008 (Thur)

Time: 8:40 AM -- 5:40 PM

Venue: LMC 512, LMC 514

Advanced Program

Time		rsday)
	Sessions	
08:40-09:10	On-site registration	
09:10-09:20	Welcome Prof. Jiming Liu, Head of Comp	uter Science Department (LMC 514)
09:20-10:50	Session A1: (Chair: Jian LI) (LMC 514) Data Mining	
	 Forum Classification Using Semi-supervised Gaussian Processes Chi Wa CHENG 	
	- The Local Kernel Regression Score for Feature Selection Hong ZENG	
	- A Survey to Community Mining Algo Dan ZHANG	orithms in Complex Networks
10:50-11:00	Tea Break	
11:00-12:00	Keynote Talk: Prof. Xindong Wu, University of Vermont, USA, and Hong Kong Polytechnic University, China (LMC 514) Top-10 Algorithms in Data Mining	
12:00-14:00	Noon Break	
14:00-15:30	Session A2: (Chair: Xiaofeng ZHANG) (LMC 512) Data Mining	Session B: (Chair: Junyang ZHOU) (LMC 514) Information System
	Latent Topics Detection with Dirichlet Process Mixture Model Tianjie ZHAN	- Goal Oriented Requirements Engineering-Goal Definition Di WU
	A Concurrent G-Negotiation Mechanism for Grid Resource Co-allocation Benyun SHI	Automatic Semantic Annotation of Web Images Chun Fan WONG
	 Privacy Policy Enforcement in Service-Oriented Data Analysis Workflows Kai Kin CHAN 	 Concept-based Multimedia Searching and Indexing Wing Sze CHAN
15:30-15:40	Tea Break	
15:30-15:40 15:40-17:40	Tea Break Session C: (Chair: Yicheng FENG) (LMC 512) Pattern Recognition	Session D: (Chair: Zhili WU) (LMC 514) Database & Networking
	Session C: (Chair: Yicheng FENG) (LMC 512)	(LMC 514)
	Session C: (Chair: Yicheng FENG) (LMC 512) Pattern Recognition - Path Planning of Virtual Human by Reinforcement Learning	(LMC 514) Database & Networking - Processing Spatial Queries in Wireless Sensor Networks
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	Session C: (Chair: Yicheng FENG) (LMC 512) Pattern Recognition - Path Planning of Virtual Human by Reinforcement Learning Yuesheng HE - Tensor Locality Preserving Projections for Face Recognition Limin CUI - Moving Object Detection Based on Information Theoretic Spatio- Temporal Saliency	 (LMC 514) Database & Networking Processing Spatial Queries in Wireless Sensor Networks Yu LI Data Management on Flash Storage Saitung ON SepRep: A Novel Reputation Evaluation Model in Peer-to-Peer Networks







