The 14th Asia-Pacific Web Conference (APWeb 2012)

April 11-13, 2012

Kunming ● China

APWEB 2012 Conference Program Booklet

Welcome to APWeb 2012, the 14th Edition of the Asia Pacific Web Technology Conference held on April 11-13, 2012 in Kunming, China. APWeb is a leading international conference on research, development, and applications of Web technologies, database systems, information management and software engineering, with a focus on the Asia-Pacific region. Previous APWeb conferences were held in Beijing (1998), Hong Kong (1999), Xian (2000), Changsha (2001), Xian (2003), Hangzhou (2004), Shanghai (2005), Harbin (2006) Huangshan (2007), Shenyang (2008), Suzhou (2009), Busan (2010), Beijing (2011). APWeb conferences cover contemporary topics in the fields of Web management and WWW-related research and applications, such as Advanced application of databases, Cloud computing, Content management, Data mining and knowledge discovery, Distributed and parallel Processing, Grid computing, Internet of Things, Semantic Web and Web ontology, Security, privacy and trust, Sensor networks, Service-oriented computing, Web community analysis, Web mining and Social networks.

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Conference Organization

Honorary General Chair:
Yaoxue Zhang, Central South University, China
General Co-Chairs:
Yanchun Zhang, Victoria University, Australia
Masaru Kitsuregawa, Tokyo University, Japan
Program Co-Chairs:
Michael Sheng, The University of Adelaide, Australia
Guoren Wang, Northeastern University, China
Christian S. Jensen, Aarhus University, Denmark
Industry Chair: *Gary Morgan, CSIRO, Australia*
Workshop and Tutorial Co-Chairs:
Hua Wang, University of Southern Queensland, Australia
Lei Zou, Peking University, China
Local Arrangement Co-Chairs:
Jianfeng HE, Kunming Univ. of Sci. & Technology, China
Guangyan Huang, Victoria University, Australia
Financial Chair: *Jing He, Victoria University, Australia*
Publication Chair: *Guandong Xu, Victoria University, Australia*
Publicity Co-Chairs:
Hao Lan Zhang, NIT, Zhejiang University, China
Jiangang Ma, Adelaide University, Australia
Demo Chair: *Chaoyi Pang, Australia e-health Research Centre*

Schedule Shared by All Attendants

Conference Location:

Yunnan Dianchi Garden Hotel & Spa, Kun Ming, Yunnan

滇池温泉花园酒店，昆明，云南

Dates: April 11-13, 2012

10:00-10:30	Coffee Break
12:30-13:30	Lunch
15:30-16:00	Coffee Break

Dates: April 10-11, 2012

18:00-20:00	Reception (Dinner)

Banquet Location: Shibo Jixin Yuan, Bailong Road, Panlong District (世博吉鑫园，盘龙区白龙路)

Date: April 12, 2012

18:30-19:00	Departure from *Yunnan Dianchi Garden Hotel & Spa*
19:00-20:30	Banquet (Shibo Jixin Yuan)

Shibo Jixin Yuan, Bailong Road, Panlong District
世博吉鑫园，盘龙区白龙路，昆明，云南

Yunnan Dianchi Garden Hotel & Spa, Kun Ming, Yunnan
滇池温泉花园酒店，昆明，云南

Workshop Program Overview

Wednesday 11 April 2012			
	Room 1	Room 2	Room 3
9:00-10:00	Invited Talk: Paulo de Souza ICT Centre, CSIRO, Australia	IDP2012	IEKB2012
10:00-10:30	Coffee Break		
10:30-12:30	SenDe2012	IDP2012	IEKB2012
12:30-13:30	Lunch		
13:30-15:30	SenDe2012	IDP2012	MBC2012
15:30-16:00	Coffee Break		
16:00-18:30	SenDe2012	IDP2012	MBC2012
18:30-20:00	Reception		
Notes: SenDe2012 Chair: Guangyan Huang IDP2012 Chairs: Takehito Utsuro and Chaoyi Pang IEKB2012 Chair: Dongyan Zhao MBC2012 Chair: Yi Zhuang			

Main Conference Program Overview

Thursday 12 April 2012			
	The Major Conference Hall	Room 1	Room 2	Room 3
8:30-10:00	**Conference Opening**: Prof. Yanchun Zhang **Keynote 1**: Scalable Integrity-Guaranteed AJAX Prof. Patrick McDaniel, Pennsylvania State University, USA (Chair: Michael Sheng)			
10:00-10:30	Coffee Break			
10:30-12:30	**Data Mining and Knowledge Discovery 1** Chair: Ling Feng	**Social Networks 1** Chair: Ruixuan Li	**Query Processing & Optimization 1** Chair: Chaoyi Pang	**Workflow and e-Services 1** Chair: Weining Qian
12:30-13:30	Lunch			
	The Major Conference Hall	Room 1	Room 2	Room 3
13:30-15:30		**XML and Semi-Structured Data** Chair: Junhu Wang	**Security, Privacy & Trust** Chair: Michael Sheng	**Demo**

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15:30-16:00	Coffee Break			
16:00-18:00		**Web Search and Meta Search** Chair: Hayato Yamana	**Data Mining and Knowledge Discovery 2** Chair: Guoren Wang	**Cloud Computing and Multimedia Systems** Chair: Chaokun Wang

Friday 13 April 2012				
	The Major Conference Hall	Room 1	Room 2	Room 3
8:30-10:05	**Keynote 2**: Context-Aware Analytics: From Applications to a System Framework Dr. Min Wang, HP Labs, China (Chair: Prof. Xiaofang Zhou) **Keynote 3**: Managing and Mining Billion-Node Graphs Dr. Haixun Wang, Microsoft Research Asia, China (Chair: Prof. Xuemin Lin) **Awards and Certificates Presentation, APWeb 2013 Announcement** (Yanchun Zhang, Michael Sheng, Guoren Wang, Xuemin Lin)			
10:05-10:30	Coffee Break			
10:30-12:30	**Data Mining and Knowledge Discovery 3** Chair: Jing Yang	**Social Networks 2** Chair: Guandong Xu	**Query Processing & Optimization 2** Chair: Alfredo Cuzzocrea	**Workflow and e-Services 2** Chair: Haolan Zhang
12:30-13:30	Lunch			
13:30-15:30		**Data Mining and Knowledge Discovery 4** Chair: Xiaoyang (Sean) Wang	**Recommendation and Performance Optimization** Chair: Guangyan Huang	**Demo**
15:30-16:00	Coffee Break			
16:00-18:00		**Cloud Computing** Chair: Zhiyong Peng	**Semantic Web** Chair: Michael Sheng	**Demo**

Workshop Presentation Schedule (April 11, 2012)

SenDe2012 (Room 1)
Chair: Guangyan Huang

9:00-10:00	**Invited Talk: Technological Breakthroughs in Environmental Sensor Networks** *Paulo de Souza*
10:00-10:30	Coffee break
10:30-11:00	**Worm Propagation Control Based on Spatial Correlation in Wireless Sensor Network** *Wei Guo, Lidong Zhai, Li Guo and Jinqiao Shi*
11:00-11:30	**A New Formal Description Model of Network Attacking and Defence Knowledge of Oil and Gas Field SCADA System** *Li Yang, Xiedong Cao, Jie Li, Cundang Wei, Shiyong Cao, Dan Zhang, Zhidi Chen and Gang Tang*
11:30-12:00	**The Geological Disasters Defense Expert System of the Massive Pipeline Network SCADA System Based on FNN** *Xiedong Cao, Cundang Wei, Li Yang, Jie Li, Dan Zhang and Gang Tang*
12:00-12:30	**An Efficient Overload Control Strategy in Cloud** *Xiling Sun, Jiajie Xu, Zhiming Ding, Xu Gao and Kuien Liu*
12:30-13:30	Lunch
13:30-14:00	**A Flexible Parallel Runtime for Large Scale Block-based Matrix Multiplication** *Keyan Liu, Shaohua Song, Ningnan Zhou and Yanyu Ma*
14:00-14:30	**Twig Pattern Matching Running on XML Streams** *Ziqiang Deng, Husheng Liao and Hongyu Gao*
14:30-15:00	**Group Detection and Relation Analysis, Research for Web Social Network** *Yang Li, Kefu Xu, Jianlong Tan, and Li Guo*
15:00-15:30	**A Novel Method for Extension Transformation Knowledge Discovering** *Xing-sen Li, Zhong-biao Xiang, Haolan Zhang, Zheng-xiang Zhu*
15:30-16:00	Coffee break
16:00-16:30	**TDSC: A 2-Phase Duplicate String Compression Algorithm** *Zhuoluo Yang, Jinguo You and Min Zhou*
16:30-17:00	**PointBurst: Towards a Trust-Relationship Framework for Improved Social Recommendations** *Hongchen Wu, Xinjun Wang, Zhaohui Peng, Qingzhong Li and Lin Lin*
18:00-20:00	Reception

IDP2012 (Room 2)
Chairs: Takehito Utsuro and Chaoyi Pang

Session 1 **Chair: Takehito Utsuro**	
10:30-10:35	**Workshop Briefing** *Chaoyi Pang, Junhu Wang, Haolan Zhang*
10:35-11:30	**Keynote Speech: Semantic discovery of multimedia digital resources** *Clement Leung*
11:30-11:50	**Analysis Framework for Electric Vehicle Sharing Systems using Vehicle Movement Data Stream** *Junghoon Lee*
11:50-12:10	**Research on Customer Segmentation Based on Extension Classification** *Chunyan Yang*
12:10-12:30	**An Incremental Mining Algorithm for Association Rules based on Minimal Perfect Hashing and Pruning** *Judy C.R. Tseng*
12:30-13:30	Lunch
Session 2 **Chair: Chaoyi Pang**	
13:30-14:30	**Keynote Speech: Challenges and Opportunities for Health Information Systems Research** Dr David Hansen, CSIRO
14:30-14:50	**LDA-based Topic Modeling in Labeling Blog Posts with Wikipedia Entries** *Daichi Koike*
14:50-15:10	**The Correlation between Semantic Visual Similarity and Ontology-based Concept Similarity in Effective Web Image Search** *Clement Leung*
15:10-15:30	**An Adaptive Design Pattern for Invocation of Synchronous and Asynchronous Web Services in Autonomic Computing** *Vis. Mannava*
15:30-15:50	**Mining Tribe-Leaders Based on the Frequent Pattern of Propagation** *Zhaoyun Ding*
15:30-16:00	Coffee break
18:00-20:00	Reception

IEKB2012 (Room 3)
Chair: Dongyan Zhao

9:00-9:30	**Research on Semantic Label Extraction of Domain Entry Relation Based on CRF and Rules** *Jianyi Guo, Jun Zhao, Zhengtao Yu, Lei Su, Nianshu Jiang*
9:30-10:00	**Recognition of Chinese Personal Names Based on CRFs and Law of Names** *Zheng Lvexing, Lv Xueqiang, Liu Kun, Du Yuncheng*
10:00-10:30	Coffee break
10:30-11:00	**An Academic Search and Analysis Prototype for Specific Domain** *Zhiqiang Gao, Yaocheng Gui, Man Zhu and Zhisheng Huang*
11:00-11:30	**Learning Chinese Entity Attributes from Online Encyclopedia** *Yidong Chen, Liwei Chen, and Kun Xu*
11:30-12:00	**A Mathematical Model for Human Flesh Search Engine** *Lei Zhang, Yuankang Liu and Juanzi Li*
12:30-13:30	Lunch

MBC2012 (Room 3)
Chair: Yi Zhuang

13:30-14:00	**Adoption of Cloud Computing in Supply Chain Management Solutions: a SCOR-aligned Assessment** *Holger Schrödl*
14:00-14:30	**Exploiting Space-time Status for Service Recommendation** *Changjian Fang, Bo Mao, Jie Cao, Zhiang Wu*
14:30-15:00	**A new dynamic ID-based remote user authentication scheme with forward secrecy** *Chun-Guang Ma, Ding Wang , Ping Zhao, Yu-Heng Wang*
15:00-15:30	**A Process Distance Metric Based on Alignment of Process Structure Trees** *Xiaodong Fu, Kun Yue, Ping Zou, Feng Wang, Kaifan Ji*
15:30-16:00	Coffee break
16:00-16:30	**Reconstructing Unsound Data Provenance View in Scientific Workflow** *Hua Hu, Zhanchen Liu, Haiyang Hu*
16:30-17:00	**Invariant Analysis for Ordering Constraints of Multi-view Business Process Model** *Jidong Ge, Haiyang Hu, Hao Hu, and Xianglin Fei*
18:00-20:00	Reception

Main Conference Presentation Schedule (April 12-13, 2012)

Opening and Keynote 1

Location: **The Major Conference Hall**
Time: **8:30-10:00, Thursday 12 April 2012**

Conference Opening
Prof. Yanchun Zhang

Keynote 1: Scalable Integrity-Guaranteed AJAX
Prof. Patrick McDaniel, Pennsylvania State University, USA (Chair: *Michael Sheng*)

Session 1: Data Mining and Knowledge Discovery 1

Location**: The Major Conference Hall**
Time: **10:30-12:30, Thursday 12 April 2012**
Chair: Ling Feng

-**Estimate Unlabeled-Data-Distribution for Semi-supervised PU Learning**
 Haoji Hu, Chaofeng Sha, Xiaoling Wang, and Aoying Zhou
-**Multiple Time Series Anomaly Detection Based on Compression and Correlation Analysis: A Medical Surveillance Case Study**
 Zhi Qiao, Jing He, Jie Cao, Guangyan Huang, and Peng Zhang
-**An Efficient Algorithm for Arbitrary Reverse Furthest Neighbor Queries**
 Jianquan Liu, Hanxiong Chen, Kazutaka Furuse, and Hiroyuki Kitagawa
-**Leveraging Network Structure for Incremental Document Clustering**
 Tieyun Qian, Jianfeng Si, Qing Li, and Qian Yu

Session 2: Social Networks 1

Location: **Room 1**
Time: **10:30-12:30, Thursday 12 April 2012**
Chair: Ruixuan Li

-**Exploration and Visualization of Administrator Network in Wikipedia**
 Jamal Yousaf, Juanzi Li, Haisu Zhang, and Lei Hou
-**Discovering the Most Potential Stars in Social Networks with Infra-Skyline Queries**
 Zhuo Peng, Chaokun Wang, Lu Han, Jingchao Hao, and Xiaoping Ou
-**Enforcing Interaction and Cooperation in Content-Based Web 3.0 Applications**
 Antonio Bevacqua, Marco Carnuccio, Alfredo Cuzzocrea, Riccardo Ortale, and Ettore Ritacco
-**Adaptive Topic Community Tracking in Social Network**
 Zheng Liang, Yan Jia, and Bin Zhou

Session 3: Query Processing/Optimization 1

Location: **Room 2**
Time: **10:30-12:30, Thursday 12 April 2012**
Chair: Chaoyi Pang

-**Memory-Aware BWT by Segmenting Sequences to Support Subsequence Search**
Jiaying Wang, Xiaochun Yang, Bin Wang, and Huaijie Zhu
-**Context-Aware Personalized Search based on User and Resource Profiles in Folksonomies**
Haoran Xie, Qing Li, and Xudong Mao
-**Search for Minority Information from Wikipedia based on Similarity of Majority Information**
Yuki Hattori and Akiyo Nadamoto
-**H-tree: a Hybrid Structure for Confidence Computation in Probabilistic Databases**
Qian Zhang, Biao Qin, and Shan Wang

Session 4: Workflow and e-Services 1

Location: **Room 3**
Time: **10:30-12:30, Thursday 12 April 2012**
Chair: Weining Qian

-**An Incremental Approach to Analyzing Temporal Constraints of Workflow Processes**
Yanhua Du and Xitong Li
-**Improve Top-K Recommendation by Extending Review Analysis**
Qing Zhu, Zhe Xing, and Jingfan Liang
-**Predicting Online Auction Final Prices Using Time Series Splitting and Clustering**
Takuya Yokotani, Hung-Hsuan Huang, and Kyoji Kawagoe
-**Memory Performance Prediction of Web Server Applications Based on Grey System Theory (short)**
Faliang Huang, Shichao Zhang, Changan Yuan, and Zhi Zhong

Session 5: XML and Semi-Structured Data

Location: **Room 1**
Time: **13:30-15:30, Thursday 12 April 2012**
Chair: Junhu Wang

-**Mining Frequent Association Tag Sequences for Clustering XML Documents**
Lijun Zhang, Zhanhuai Li, Qun Chen, Xia Li, Ning Li, and Ying Lou
-**Keywords Filtering over Probabilistic XML Data**
Chenjing Zhang, Le Chang, Chaofeng Sha, Xiaoling Wang, and Aoying Zhou
-**Guess What I Want: Inferring the Semantics of Keyword Queries Using Evidence Theory**
Jia-Jian Jiang, Zhi-Hong Deng, Ning Gao, and Sheng-Long Lv

-**A Compact XML Storage Scheme Supporting Efficient Path Querying (short)**
Xiangyu Hu, Haiwei Zhang, and Xiaojie Yuan

Session 6: Security, Privacy and Trust

Location: **Room 2**
Time: **13:30-15:30, Thursday 12 April 2012**
Chair: Michael Sheng

-**A Software Watermark Based Architecture for Cloud Security**
Pengfei Dai, Chaokun Wang, Zhiwei Yu, Yongsheng Yue, and Jianmin Wang
-**PUF-based RFID Authentication Protocol Against Secret Key Leakage**
Yongming Jin, Wei Xin, Huiping Sun, and Zhong Chen
-**FindCredPg: A Novel Method to Find Credible Pages based on TrustWeb Graph**
Teng Wang, Qing Zhu, Shan Wang, and JingFan Liang
-**Hit Count Reliability: How Much Can We Trust Hit Counts? (short)**
Koh Satoh and Hayato Yamana

Session 7: Web Search and Meta Search

Location: **Room 1**
Time: **16:00-18:00, Thursday 12 April 2012**
Chair: Hayato Yamana

-**Disputed Sentence Suggestion towards Credibility-oriented Web Search**
Yusuke Yamamoto
-**Towards Real Intelligent Web Exploration**
Pavel Kalinov, Abdul Sattar, and Bela Stantic
-**An Entity Class Model Based Correlated Query Path Selection Method in Multiple Domains (short)**
Jing Shan, Derong Shen, Tiezheng Nie, Yue Kou, and Ge Yu
-**Verifying Location-based Services with Declassification Enforcement (short)**
Cong Sun, Sheng Gao, and Jianfeng Ma
-**Self-Supervised Learning Approach for Extracting Citation Information on the Web (short)**
Dat T. Huynh and Wen Hua

Session 8: Data Mining and Knowledge Discovery 2

Location: **Room 2**
Time: **16:00-18:00, Thursday 12 April 2012**
Chair: Guoren Wang

-**Distance-based Outlier Detection on Uncertain Data of Gaussian Distribution**
Shaikh Salman Ahmed and Hiroyuki Kitagawa
-**Taxonomy-oriented Recommendation Towards Recommendation with Stage**
Lei Li, Wenxing Hong, and Tao Li
-**Integrating Temporal Usage Pattern into Personalized Tag Prediction**

Lei Zhang, Jian Tang, and Ming Zhang
-**A Topological Description Language for Agent Networks (short)**
Hao Lan Zhang, Chaoyi Pang, Xingsen Li, Bin Shen, and Yan Jiang

Session 9: Cloud Computing and Multimedia Systems

Location: **Room 3**
Time: **16:00-18:00, Thursday 12 April 2012**
Chair: Chaokun Wang

-**Model-Based Similarity Measure in TimeCloud**
Thanh-Nguyen Ngo, Hoyoung Jeung, and Karl Aberer
-**The Equi-Join Processing and Optimization on Ring Architecture Key/Value Database**
Xite Wang, Derong Shen, Tiezheng Nie, Yue Kou, and Ge Yu
-**Efficient Probabilistic Image Retrieval Based on a Mixed Feature Model**
Yi Zhuang, Zhiang Wu, Nan Jiang, Guochang Jiang, Dickson K.W. Chiu, and Hua Hu
-**Re-ranking by Multi-Modal Relevance Feedback for Content-Based Social Image Retrieval**
Jiyi Li, Qiang Ma, Yasuhito Asano, and Masatoshi Yoshikawa

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Keynotes 2 and 3

Location: **The Major Conference Hall**
Time: **8:30-10:05, Friday 13 April 2012**

Keynote 2: **Context-Aware Analytics: From Applications to a System Framework**
Dr. Min Wang, HP Labs, China (Chair: *Prof. Xiaofang Zhou*)

Keynote 3: **Managing and Mining Billion-Node Graphs**
Dr. Haixun Wang, Microsoft Research Asia, China (Chair: *Prof. Xuemin Lin*)
Awards and Certificates Presentation, APWeb 2013 Announcement
(*Yanchun Zhang, Michael Sheng, Guoren Wang, Xuemin Lin*)

Session 10: Data Mining and Knowledge Discovery 3

Location: **The Major Conference Hall**
Time: **10:30-12:30, Friday 13 April 2012**
Chair: Jing Yang

-**Extracting Keyphrase Set with High Diversity and Coverage Using Structural SVM**
Weijian Ni, Tong Liu, and Qingtian Zeng
-**Feature Based Informative Model for Discriminating Favorite Items from Unrated Ones**
Bing Cheng, Tianqi Chen, Diyi Yang, Weinan Zhang, Yongqiang Wang, and Yong Yu
-**Energy-based Metric for Ensemble Selection**

Weimei Zhi, Huaping Guo, and Ming Fan
-Collective Viewpoint Identification of Low-level Participation
Bin Zhao, Zhao Zhang, Yanhui Gu, Weining Qian, and Aoying Zhou

Session 11: Social Networks 2

Location: **Room 1**
Time: **10:30-12:30, Friday 13 April 2012**
Chair: Guandong Xu

-Who Resemble You Better, Your Friends or Co-visited Users (short)
Jinjing Ma and Yan Zhang
-L1-graph Based Community Detection in Online Social Networks (short)
Liang Huang, Ruixuan Li, Yuhua Li, Xiwu Gu, Kunmei Wen, and Zhiyong Xu
-Characterizing Topic-Specific Hashtag Cascade in Twitter Based on Distributions of User Influence (short)
Geerajit Rattanaritnont, Masashi Toyoda, and Masaru Kitsuregawa
-Sentiment Analysis for Effective Detection of Cyber Bullying (short)
Vinita Nahar, Sayan Unankard, Xue Li, and Chaoyi Pang

Session 12: Query Processing/Optimization 2

Location: **Room 2**
Time: **10:30-12:30, Friday 13 April 2012**
Chair: Alfredo Cuzzocrea

-An Optimization Strategy for Mashups Performance Based on Relational Algebra
Hailun Lin, Cheng Zhang, and Peng Zhang
-CDDTA-JOIN: One-pass OLAP algorithm for Column-oriented Databases
Min Jiao, Yansong Zhang, Yan Sun, Shan Wang, and Xuan Zhou
-A GPU-based Accelerator for Chinese Word Segmentation
Xiwu Gu, Ruixuan Li, Kunmei Wen, Bei Peng, and Weijun Xiao
-Continuous Min-Max Distance Bounded Query in Road Networks
Yuan-Ko Huang, Lien-Fa Lin, Yu-Chi Chung, and I-Fang Su

Session 13: Workflow and e-Services 2

Location: **Room 3**
Time: **10:30-12:30, Friday 13 April 2012**
Chair: Hao Lan Zhang

-Multi-Strategic Approach of Fast Composition of Web Services (short)
Gang Wang, Li Zhang, and Kunming Nie
-Dataflow Optimization for Service-Oriented Applications (short)
Peng Zhang, Guiling Wang, and Yanbo Han
-A Graphical Audit Facility for Data Processing and its Evaluation with Users (short)
Jens Muller, Murat Kavak, and Klemens Bohm

-Efficient Retrieval of Similar Workflow Models Based on Behavior (short)
Tao Jin, Jianmin Wang, and Lijie Wen
-A Study on Modeling of Lightweight Scientific Workflow Systems Using XML Schema (short)
Yingbo Liu, Feng Wang, Hui Deng, Xiaodong Fu, and Kaifan Ji
-Extracting Difference Information from Multilingual Wikipedia (short)
Yuya Fujiwara1, Yu Suzuki, Yukio Konishi, and Akiyo Nadamoto

Session 14: Data Mining and Knowledge Discovery 4

Location: **Room 1**
Time: **13:30-15:30, Friday 13 April 2012**
Chair: Xiaoyang (Sean) Wang

- A Study of the Single Point Mutation Loci in the Hepatitis B Virus Sequences via Optimal Risk and Preventive Sets with Weights
Qi Zhang, Junpeng Zhang, Jianmei Gao, Jianfeng He, Xinmin Yan, Lei Ma, Xianwen Zhang, and Jiuyong Li
-Collaborative Filtering via Temporal Euclidean Embedding (short)
Lifang Yin, Yongqiang Wang, and Yong Yu
-Transfer Learning with Local Smoothness Regularizer (short)
Jiaming Hong, Bingchao Chen, and Jian Yin
-When Sparsity Meets Noise in Collaborative Filtering (short)
Biyun Hu, Zhoujun Li, and Wenhan Chao
-Data Sparsity: a Key Disadvantage of User-based Collaborative Filtering? (short)
Biyun Hu, Zhoujun Li, and Wenhan Chao
-Complete-Thread Extraction from Web Forums (short)
Fanghuai Hu, Tong Ruan, and Zhiqing Shao

Session 15: Recommendation and Performance Optimization

Location: **Room 2**
Time: **13:30-15:30, Friday 13 April 2012**
Chair: Guangyan Huang

-Learning to Recommend Based on Slope One Strategy (short)
Yongqiang Wang, Liang Yin, Bing Cheng, and Yong Yu
-Improving Recommendation Based on Features• f Co-occurrence Effects in Collaborative Tagging Systems (short)
Hao Han, Yi Cai, Yifeng Shao, and Qing Li
-Single-Hop Friends Recommendation and Verification Based Incentive for BitTorrent (short)
Yan Pang and Zongming Guo
-Path Skyline for Moving Objects (short)
Wookey Lee, Chris Soo-Hyun Eom, and Tae-Chang Jo
-Performance Optimization of Analysis Rules in Real-time Active Data Warehouses (short)
Ziyu Lin, Dongzhan Zhang, Chen Lin, Yongxuan Lai, and Quan Zou

Session 16: Cloud Computing

Location: **Room 1**
Time: **16:00-18:00, Friday 13 April 2012**
Chair: Zhiyong Peng

-**Scalable Complex Event Processing on Top of MapReduce (short)**
Jiaxue Yang, Yu Gu, Yubin Bao, and Ge Yu
-**Introducing SaaS Capabilities to Existing Web-based Applications Automatically (short)**
Jie Song, Zhenxing Yan, Feng Han, Yubin Bao, and Zhiliang Zhu
-**Group-Scope Query and Its Access Method (short)**
Yi Wang, Fan Xia, and Aoying Zhou
-**Computing Resource Prediction for MapReduce Applications Using Decision Tree (short)**
Jing Tai Piao and Jun Yan
-**Scalable Subspace Logistic Regression Models for High Dimensional Data (short)**
Shuang Wang, Xiaojun Chen, Joshua Zhexue Huang, and Shengzhong Feng

Session 17: Semantic Web

Location: **Room 2**
Time: **16:00-18:00, Friday 13 April 2012**
Chair: Michael Sheng

-**P2P-Based Publication and Sharing of Axioms in OWL Ontologies for SPARQL Query Processing in Distributed Environment (short)**
Huayou Si, Zhong Chen, Yun Zhao, and Yong Deng
-**Efficient SPARQL Query Processing in MapReduce through Data Partitioning and Indexing (short)**
Zhi Nie, Fang Du, Yueguo Chen, Xiaoyong Du, and Linhao Xu

Session 18: Demonstrations

Location: **Room 3**
Time: **13:30-15:30 (Thursday, April 12, 2012)**
13:30-18:00 (Friday, April 13, 2012)

-**Bizard: An Online Multi-dimensional Data Analysis Visualization Tool**
Zhuoluo Yang, Jinguo You, Jian Wang, and Jianhua Hu
-**Jingwei+: A Distributed Large-scale RDF Data Server**
Xin Wang, Longxiang Jiang, Hong Shi, Zhiyong Feng, and Pufeng Du
-**Baby Careware: A Online Secured Health Consultant**
Yanjun Cui, Yanping Zhou, Huan Mei, and Zheng Zhao
-**Mobile Applications towards Prevention and Management of Chronic Diseases**
Hang Ding, Marlien Varnfield, and Mohan Karunanithi
-**A Healthcare Information System with Augmented Access Controls**
Nagajyothi Gunti, Weiqing Sun, Mingzhe Xu, Zidong Liu, Mohammed Niamat, and Mansoor Alam

Patrick McDaniel – Pennsylvania State University, U.S.A

Title: Scalable Integrity-Guaranteed AJAX

Abstract- Interactive web systems are the de facto vehicle for implementing sensitive applications, e.g., personal banking, business workflows. Existing web services provide little protection against compromised servers, leaving users to blindly trust that the system is functioning correctly, without being able to verify this trust. Document integrity systems support stronger guarantees by binding a document to the (non-compromised) integrity state of the machine from whence it was received, at the cost of substantially higher latencies. Such latencies render interactive applications unusable. This paper explores cryptographic constructions and systems designs for providing document integrity in AJAXstyle interactive web systems. The Sporf system exploits pre-computation to offset runtime costs to support negligible latencies. We detail the design of an Apache-based server supporting content integrity proofs, and perform a detailed empirical study of realistic web workloads. Our evaluation shows that a software only solution results in latencies of just over 200 milliseconds on a loaded system. An analytical model reveals that with a nominal hardware investment, the latency can be lowered to just over 81 milliseconds, achieving nearly the same throughput as an unmodified system.

Biography- Patrick McDaniel is a Professor in the Computer Science and Engineering Department at the Pennsylvania State University and co-director of the Systems and Internet Infrastructure Security Laboratory. Prof. McDaniel is the Editor-in-Chief of the ACM Transactions on Internet Technology (TOIT), and serves as associate editor of the journals ACM Transactions on Information and System Security, IEEE Transactions on Software Engineering, and IEEE Transactions on Computers. Patrick's research efforts centrally focus on network, telecommunications, and systems security, language-based security, and technical public policy. Patrick was awarded the National Science Foundation CAREER Award and has chaired several top conferences in security including, among others, the 2007 and 2008 IEEE Symposium on Security and Privacy and the 2005 USENIX Security Symposium. He has authored over 100 books, papers, and reports and given over 100 invited talks.
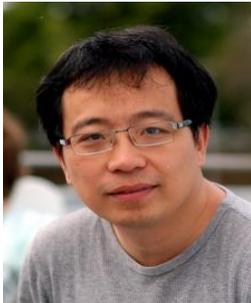
Min Wang – Director of HP Labs China

Title: Context-Aware Analytics: From Applications to a System Framework

Abstract- With the information explosion on the Web, within enterprises, and in the network systems, the capability to adapt application or system behaviors to the relevant contexts of users or systems is the key to achieving user satisfaction or high system performance. As a result, a recent Gartner report lists context-aware computing as one of four trends (along with cloud, business impact of social computing, and pattern based strategy) that will change IT and the economy in the next ten years. Context-awareness refers to the ability of an application that understands and uses the current context of the user and adapts the application's operations to deliver high-quality and well-personalized user experience. In this talk, I will discuss several context-aware applications that involve various context types and technical challenges in supporting such applications. I will also outline a vision on a generic system framework for supporting context-aware computing.

Biography- Dr. Min Wang is a Distinguished Technologist and the Director of HP Labs China, which focuses on information analysis and networking. Prior to joining HP, Dr. Wang led a 10-year career at IBM Research, most recently as a Research Staff Member and the manager of the Unified Data Analytics Department at IBM's Thomas J. Watson Research Center in Hawthorne, New York, where she pursued her research interests in database systems and information management. Over the course of her career at IBM, she has led several projects in the areas of Query Processing and Optimization for relational, XML, and streaming data, Information Integration, Electronic Commerce and Database Security, including the design and implementation of a significant component in DB2 9 pureXML release. She also has published broadly in the areas of database systems and information management. In 2009, she received the ACM SIGMOD 2009 Test of Time Award for her 1999 SIGMOD paper, "Approximate Computation of Multidimensional Aggregates of Sparse Data Using Wavelets". The award acknowledges the best paper from the SIGMOD conference proceedings 10 years prior, based on the criterion of identifying the paper that has had the most impact (research, products, methodology) over the intervening decade. She received her Ph.D. degree in Computer Science from Duke University and the B.S. and M.S. degrees, both in Computer Science, from Tsinghua University, Beijing, China.

Haixun Wang – Microsoft Research Asia, China

Title: Managing and Mining Billion-Node Graphs

Abstract- We are facing challenges at all levels ranging from infrastructures to programming models for managing and mining large graphs. A lot of algorithms on graphs are ad-hoc in the sense that each of them assumes that the underlying graph data can be organized in a certain way that maximizes the performance of the algorithm. In other words, there is no standard graph systems based on which graph algorithms are developed and optimized. In response to this situation, a lot of graph systems have been proposed recently. In this tutorial, we discuss several representative systems. Still, we focus on providing perspectives from a variety of standpoints on the goals and the means for developing a general purpose graph system. We highlight the challenges posed by the graph data, the constraints of architectural design, the different types of application needs, and the power of different programming models that support such needs.

Biography- Dr. Haixun Wang is a senior researcher at Microsoft Research Asia in Beijing, China, where he manages the group of Data Management, Analytics, and Services. Before joining Microsoft, he had been a research staff member at IBM T. J. Watson Research Center for 9 years. He was Technical Assistant to Stuart Feldman (Vice President of Computer Science of IBM Research) from 2006 to 2007, and Technical Assistant to Mark Wegman (Head of Computer Science of IBM Research) from 2007 to 2009. Haixun Wang has published more than 120 research papers in referred international journals and conference proceedings. He is on the editorial board of Distributed and Parallel Databases (DAPD), IEEE Transactions of Knowledge and Data Engineering (TKDE), Knowledge and Information System (KAIS), Journal of Computer Science and Technology (JCST). He is PC co-Chair of CIKM 2012, ICMLA 2011, WAIM 2011. Haixun Wang got the ER 2008 Conference best paper award (DKE 25 year award), and ICDM 2009 Best Student Paper run-up award.

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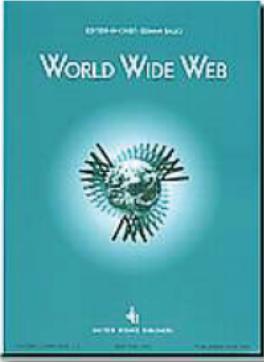
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