BIGCOM 2021 Conference Program

BIGCOM 2021 大会日程

Day 1: Friday, Aug 13	
Venue: Online, Tencent Meeting **ID： 574 978 2853**	
会场：腾讯在线会议 **ID： 574 978 2853**	
Opening Remarks **(开幕式)**	
Time	Speakers
9:00-9:10	Opening Remarks by Chairman 领导发言
9:10-9:20	Opening Remarks by TPC Chairs 会议技术委员会主席发言
Keynote 1 **(主题演讲 1)**	
Time	Title /Author
9:20-10:20	Chukonu: A Fully-Featured Big Data Processing System with a C++ Native Computing Core Prof. Wenguang Chen (Tsinghua University) Host: Chenren Xu
10:20-10:30	Break
Keynote 2 **(主题演讲 2)**	
10:30-11:30	Sampling Large Networks: Algorithms and Applications Prof. John Lui (The Chinese University of Hong Kong) Host: Ruiting Zhou
11:30-12:30	Lunch
Session 1: Edge Computing and Data Center (论坛 1：边缘计算与数据中心) **Session Chair: Lei Shi(shilei@hfut.edu.cn)**	
Time	Title /Authors
12:30-12:45	Dynamic Multi-level Feedback Queuing based Packet Scheduling for Datacenter Networks Shishuai Wang, Weidong Zhang, Xuangou Wu, Wei Zhao, and Xiao Zheng (Anhui University of Technology)
12:45-13:00	Energy Efficient Resource Allocation and Trajectory Optimization in UAV-Assisted Mobile Edge Computing System Shuaibing Chen, Lei Shi, Ding Xu, Zengwei Lv, and Zhehao Li (HeFei University of Technology)

13:00-13:15	Mec2: Mobile Edge Computing enabled Caching Framework for Internet of Vehicles Guozhi Zhang (Northwest Normal University); Jiqiang Liu and Xiaolin Chang (Beijing Jiaotong University)
13:15-13:30	Listen-on-Edge: towards Learning Realtime Traffic Flow in Smart City Liangyan Hu, Yuanfei Yang, Guodong Sun, and Ruifeng Duan (Beijing Forestry University); Xingjian Ding (Renmin University of China)
13:30-13:45	DiterGraph: Toward I/O-Efficient Incremental Computation over Large Graphs with Billion Edges Yujie Du, Zhigang Wang, Ning Wang, Luqing Xie, and Zhiqiang Wei (Ocean University of China)

Session 2: Wireless Signals and Systems
(论坛 2: 无线通信与感知)
Session Chair: Xuangou Wu(wuxgou@ahut.edu.cn)

Time	Title /Authors
13:45-14:00	Matched Averaged Federated Learning Gesture Recognition with WiFi Signals Zexin Wang, Weidong Zhang, Xuangou Wu, and Xiujun Wang (School of Computer Science and Technology, Anhui University of Technology)
14:00-14:15	A Novel Routing Metric for Underwater Optical Wireless Communication Using ns-3 Bowen Yan, Lei Wang, Yu Su, Yu Tian, and Bingxian Lu (Dalian University of Technology)
14:15-14:30	Wi-Piga:A personnel-independent method for actions recognition based on Wi-Fi Zhanjun Hao, Juan Niu, Xiaochao Dang, and Zhiqiang Qiao (Northwest Normal University)
14:30-14:45	WiFi-Bluetooth Dual Modal Indoor Positioning System Using Adaptive Range Filter Peng Zhao, Lei Wang, and Yu Tian (Dalian University of Technology); Linlin Guo (Shandong Normal University); Bingxian Lu (Dalian University of Technology)
14:45-15:00	Break

Keynote 3
(主题演讲 3)

Time	Title /Author
15:00-16:00	Estimating Socioeconomic Status with Big Data Prof. Xiaoming Fu (Georg-August-University of Goettingen) Host: Haisheng Tan
16:00-16:15	Break

Session 3: Classification and Identification
(论坛 3：分类与识别)
Session Chair: Tao Wu(wutao20@nudt. edu. cn)

Time	Title/Authors
16:15-16:30	Nutrition Feature Basis of Food Classification in Traditional Chinese Medicine

	Wan Yi, Xiaosong Han, Fucheng Zhao, Yikun Zhang, Jun Cheng, and Peiyu Niu (Key Laboratory for Symbol Computation and Knowledge Engineering of National Education Ministry, College of Computer Science and Technology, Jilin University)
16:30-16:45	A Distributed Traffic Classification Model based on Federated Learning Xufeng Zhu, Nina Shu, Huaixi Wang, and Tao Wu (National University of Defense Technology)
16:45-17:00	Constructing Knowledge Representation Vectors by Symbolic Fourier Approximation and Dynamic Time Warping to Improve Time Series Classification Yucheng Li and Derong Shen (Northeastern University in China)
17:00-17:15	Classification of Birds Based on Weighted Fusion Peng Wu, Xiaomei Yi, and Lufeng Mo (Zhejiang A&F University); Gang Wu (Beijing Forestry University)
17:15-17:30	SignID: Acoustic-based Identification with Single Sign Gesture Cheng Chuanhu, Xiong Yan, Huang Wenchao and Ma Lu Hui Xu, TianRan Wang, XiaoYu Wang, YuBo Yan, and PanLong Yang (University of Science and Technology of China)

Day 2: Saturday, Aug 14
Venue: Online
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Session 4: Computing(i)
(论坛 4：计算 1)
Session Chair: Tong Liu(tong_liu@shu.edu.cn)

Time	Title/Authors
9:30-9:45	Bandit-Enhanced Graph Collaborative Filtering via Graph Reconstruction Ruoyu Zhao (University of Science and Technology of China)
9:45-10:00	MGSTCN: A Multi-Graph Spatio-Temporal Convolutional Network for Metro Passenger Flow Prediction Jiahao Yang, Tong Liu, Chengfan Li, and Weiqin Tong (School of Computer Engineering and Science, Shanghai University); Yanmin Zhu (Department of Computer Science and Engineering, Shanghai Jiao Tong University); Wenwei Ai (Shanghai Shentong Metro Co., Ltd.)
10:00-10:15	Estimation of Load Factors of Trains Using Multi-source data for Complex Metro Systems Hexiang Wu, Tong Liu, ChengFan Li, and WeiQin Tong (School of Computer Engineering and Science, Shanghai University); Zhenni Feng (School of Computer Science and Technology, Donghua University); Shimin Zhao (Shanghai Shentong Metro Co., Ltd.)
10:15-10:30	Efficient Ad-level Impression Forecasting based on Monotonicity and Sampling Zhengtao Wu and Lan Zhang (University of Science and Technology of China); Hui Sheng (Tencent)

10:30-10:45	Break

Session 5: Computing(ii)
(论坛 5：计算 2)
Session Chair: Yubo Yan(yuboyan@ustc.edu.cn)

Time	Title/Authors
10:45-11:00	Keyword Extraction Based on Semantic Similarity Metric and Multi-Feature Computing Hui Kang, Xin Sun, and Tie Feng (Jilin University); Shuhang Lin (Beijing ByteDance Technology Co., Ltd)
11:00-11:15	Small Object Detection in Complex Large Scale Spatial Image by Concatenating SRGAN and Multi-Task WGAN Yu Fu, Chengyu Zheng, Liyuan Yuan, Hao Chen, and Jie Nie (Ocean University of China) Xueying Zhang, Ruiting Zhou, John C.S. Lui and Zongpeng Li
11:15-11:30	Separability criteria combined with local filtering transformation based on the Bloch representation Wenli Wu and Zhaofeng Su (University of Science and Technology of China)
11:30-11:45	CMSS: Use Low-power IoT Cameras to Monitor Store Shelves Xiaotian Fan, Yubo Yan, Panlong Yang, and Feiyu Han (LINKE Lab, School of Computer Science and Technology, USTC)
11:45-13:30	Lunch

Session 6: Security and Privacy
(论坛 6：安全与隐私)
Session Chair: Xing Guo(guox@ahu.edu.cn)

Time	Title/Authors
13:30-13:45	RPM: Local Differential Privacy based Inventory Forecasting Lan Zhang and Cong Tang (University of Science and Technology of China)
13:45-14:00	Anti Leakage : Protecting privacy hidden in our speech Hao Zhu, Yanyong Zhang, Xing Guo, and Xiang-Yang Li (School of Computer Science and Technology, University of Science and Technology of China)
14:00-14:15	The Truman Show: Attack On Privacy Of Smart Homes Through Traffic Analysis Xiaomeng Yu, Yanyong Zhang, Xiangyang Li, and Xing Guo (University of Science and Technology of China)
14:15-14:30	Security Analysis of Session Initiation Protocol Digest Access Authentication Scheme Yuting Feng (Hefei Normal University); Feng Xiong (Anhui Fuhuang Technology Co.,LTD); Wenchao Huang and Yan Xiong (University of Science and Technology of China)
14:30-14:45	TL-SDD: A Transfer Learning-Based Method for Surface Defect Detection with Few Samples Jiahui Cheng, Bin Guo, Jiaqi Liu, Sicong Liu, Guangzhi Wu, Yueqi Sun, and Zhiwen Yu (Northwestern Polytechnical University)
14:45-15:00	A Certificate Authority Domain-based Cross-domain Authentication Scheme for Virtual Enterprise Using Identity Based Encryption

	Xingcan Zhou, Fuyou Miao, and Yan Xiong (University of Science and Technology of China)
15:00-15:15	ID-Based Hybrid Network Architecture for the AIoT Qiang Li, Hao Zhu and Xiang-Yang Li (School of Computer Science and Technology, University of Science and Technology of China, Hefei, China); Haohua Du (School of Cyber Science and Technology, Beihang University, Beijing, China); Xing Guo and Yanyong Zhang (School of Computer Science and Technology, University of Science and Technology of China, Hefei, China)
15:15-15:30	Break

Session 7: Data Processing
(论坛 7：数据处理)
Session Chair: ZhengYu Li (1065990708@qq.com)

Time	Title/Authors
15:30-15:45	Hidden Markov based Truth Discovery for Multi-Agent Labeling Shan-Yang Jiang and Lan Zhang (University of Science and Technology of China)
15:45-16:00	Generative Dataset Distillation Chengeng Huang and Sihai Zhang (University of Science and Technology of China)
16:00-16:15	Optimal Data Collection for A Mobile Sink Xufei Mao and Chaochao Wu (Dongguan University of Technology); Xiang-Yang Li (School of Computer Science and Technology, USTC)
16:15-16:30	Analysis of Literary based on Deep Emotional Network Lejun Gong and Xiangyu Tang (Nanjing University of Posts and Telecommunication); Huakang Li (Xi'An Jiaotong-liverpool University)
16:30-16:45	Research on Informatization Forecasting Particulate Matter Using Spatio-Temporal Data Qide Wu, Hongli Xu, and Liusheng Huang (School of Computer Science and Technology, University of Science and Technology of China); Shixuan Guan (School of Electronic and Information Engineering, Suzhou University of Science and Technology); Chunchen Lu (School of Environmental Science and Engineering, Suzhou University of Science and Technology)
16:45-17:00	MGeohash: A Trajectory Data Index Method based on Historical Data Pre-partitioning ZhengYu Li and ZhuoFeng Zhao (Beijing Key Laboratory on Integration and Analysis of Large-scale Stream Data, North China University of Technology)

Day 3: Sunday, Aug 15
Venue: Online
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Session 8: Networking

(论坛 8：计算机网络) **Session Chair: Jie Li(lijie@mail.neu.edu.cn)**	
Time	Title/Author
9:30-9:45	Efficient Semantic Segmentation Network with Multiple Paths Attention Donghui Liu, Wenhui Li, Yulong Hu, and Manglai Ji (Jilin University)
9:45-10:00	Path Planning Algorithm for Two-dimensional Raster Maps based on Deep Reinforcement Learning Jie Li, Yuhan Zhang, and Xianjie Liu (Computer Science and Engineering, Northeastern University); Ruiyun Yu (Software College, Northeastern University)
10:00-10:15	Transmit or Wait? Efficient Scheduling Algorithms for minimizing latency in Power-Adjustable Wireless Sensor Network Xi Chen, Siyao Cheng, Feng Li, and Jie Liu (Harbin Institute of Technology)
10:15-10:30	A Method for Short-term Traffic Flow Prediction and Control on Urban Road Chunjiang Wu, Shijie Zhou, Changli Fan, and Le Qi (University of Electronic Science and Technology of China)
10:30-10:45	The Charging Path Optimization Algorithm with the Moving Velocity Control of Wireless Charing Equipment in WRSNs Siwei Zhu, Lin Feng, Meng Li, Zengwei Lyu, and Zhenchun Wei (Hefei University of Technology)
10:45-11:00	Break

Session 9: Computing(iii)
（论坛 9：计算 3)
Session Chair: Haohua Du(duhaohua@buaa.edu.cn)

Time	Title/Authors
11:00-11:15	Influence of Influence on Social Networks: Information Propagation Causes Dynamic Networks Qiang Li (USTC); Haohua Du (BUAA); Xiang-Yang Li (USTC)
11:15-11:30	3D Object Detection on Voxels in Spherical Coordinate System Xing Guo, Yu Zhang, Lei Gong, and Yanyong Zhang (University of Science and Technology of China)
11:30-11:45	Hybrid Attention Cascaded U-net For Building Extraction from Aerial Images Chaohui Li, Yingjian Liu, Haoyu Yin, Yue Li, Pengting Du, Limin Zhang, and Qingxiang Guo (Ocean University of China)
11:45-12:00	Collaborative Deep Sensing by Dynamically Fusing Multiple Models Mengjing Liu, Lan Zhang, Daren Zheng, and Xiangyang Li (University of Science and Technology of China)