Wei Cai

Room 4090, Kaiser Building, The University of British Columbia

2332 Main Mall, Vancouver, BC, Canada, V6T 1Z4

(+1) 604-368-0085

weicai@ece.ubc.ca

http://ece.ubc.ca/~weicai

EDUCATION

- **Ph.D. Candidate, Electrical and Computer Engineering, The University of British Columbia**
  - Supervisor: Prof. Victor C.M. Leung
  - Thesis: Cognitive Cloud Gaming for Mobile Devices
- **M.Sc., Electrical Engineering and Computer Science, Seoul National University, Korea   2011**
  - Supervisor: Prof. Taekyoung Kwon
  - GPA: 4.04 / 4.3 (Major: 4.06 / 4.3)
  - Thesis: A Genetic Algorithm Approach to Multi-Agent Itinerary Planning in Wireless Senor Networks
- **B.Eng., Software Engineering, Xiamen University, P. R. China   2008**
  - Supervisor: Prof. Wenhua Zeng
  - GPA: 83.9 /100 (top 10%)
  - Thesis: Multi-Interface and Multi-Path Ad hoc On-Demand Distance Vector Routing Protocol in WMNs
  - Postgraduate Recommendation Exempt from Admission Exam
- **Exchange Student, Computer Science and Engineering, Inha University, Korea   2007 - 2008**

CURRICULUM

- **Visiting Researcher**
  - Hong Kong Polytechnic University, Hong Kong (2013.12~2014.03)
  - National Institute of Informatics, Japan (2011.02 ~ 2011.07)
- **Part-Time Software Engineer**
  - Digipixie Innovate, Vancouver, Canada (2013.04 ~ 2013.05)
  - RealtyCN, Vancouver, Canada (2012.11 ~ 2013.02)
- **Research Assistant**
  - Wireless Networks and Mobile Systems Lab, University of British Columbia (2011.09 ~ present)
  - Multimedia and Mobile Communications Lab, Seoul National University (2009.03 ~ 2011.02)
  - Laboratory of Intelligent Embedded System, Xiamen University (2006.09 ~ 2009.03)
- **Teaching Assistant**
  - Data Structure in Seoul National University (2010 Summer)
  - Computer Modeling in Seoul National University (2010 Spring)
  - Java Programming in Seoul National University (2009 Winter)
  - Data Structure in Seoul National University (2009 Winter)
  - Microcomputer Interface Experiment in Xiamen University (2008 Summer)
- **Social Work**
  - President, Student Union in Software School, Xiamen University (2006.09 ~ 2007.09)
  - Vice President, Google Camp, Xiamen University (2006.09-2007.09)

HONORS AND AWARDS

- 2013: Best Paper Award, 4th International Conference on Cloud Computing
- 2013: Presidential Scholarship for International Students, Canadian Fujianese Friendship Association
- 2011-2015: Four-Year Fellowship, The University of British Columbia (Top 2-3% of UBC PhD students)
- 2009~2010: Brain Korea 21, Korean National Scholarship
- 2009~2010: Superior Academic Performance, Seoul National University
- 2008: First Class Scholarship for Graduate Student, Xiamen University
- 2007: Excellent Student Scholarship from Bank of China, Xiamen University
- 2005~2007: Scholarship of Academic Excellent, Xiamen University

PUBPLICATIONS

[1] **Wei Cai**, Victor C.M. Leung and Long Hu, "A Cloudlet-Assisted Multiplayer Cloud Gaming System", to appear in ACM/Springer Mobile Networks and Applications (MONET) Special Issue on Advances in Mobile Cloud Computing, 2014. (SCI Journal)

[2] **Wei Cai**, Conghui Zhou, Victor C.M. Leung and Min Chen, "A Cognitive Platform for Mobile Cloud Gaming", to appear in The IEEE 5th International Conference on Cloud Computing Technology and Science (CloudCom2013), Bristol, UK, December 2-5, 2013.

[3] Hasen Nicanfar, Qiang Liu, Peyman TalebiFard, **Wei Cai**, Victor C.M. Leung, "Community Cloud: Concept, Model, Attacks and Solution", to appear in The IEEE 5th International Conference on Cloud Computing Technology and Science (CloudCom2013), Bristol, UK, December 2-5, 2013.

[4] **Wei Cai**, Conghui Zhou, Victor C.M. Leung and Min Chen, "Environment Perception for Cognitive Cloud Gaming", in proceeding of The 4th International Conference on Cloud Computing (CloudComp2013), Wuhan, China, Octorber 17-19, 2013.

[5] Kan Zheng, Hanlin Meng, Hua Zhu, Kai Lin, **Wei Cai**, and Hang Long, "Delay-Optimized Offloading for Mobile Cloud Computing Services in Heterogenous Networks", in proceeding of The 4th International Conference on Cloud Computing (CloudComp2013), Wuhan, China, Octorber 17-19, 2013.

[6] Min Chen, Yujun Ma, Sana Ullah, **Wei Cai**, Enmin Song, "ROCHAS: Robotics and Cloud-assisted Healthcare System for Empty Nester", to appear in the 8th International Conference on Body Area Networks(BODYNETS2013), Boston, Massachusetts, USA, September 30–October 2, 2013.

[7] **Wei Cai**, Victor C.M. Leung and Min Chen, "Next Generation Mobile Cloud Gaming", in Proceeding of IEEE 7th International Symposium on Service Oriented System Engineering (SOSE2013), pp.551-560, Hotel Sofitel, San Francisco Bay, USA, March 25-28, 2013.

[8] **Wei Cai** and Victor C.M. Leung, "Multiplayer Cloud Gaming System with Cooperative Video Sharing", in Proceeding of 4th IEEE International Conference on Cloud Computing Technology and Science (CloudCom2012), pp.640-645, Taipei, Taiwan, December 3-6, 2012.

[9] **Wei Cai**, Gene Cheung, Sung-Ju Lee and Ted Taekyoung Kwon, "Optimal Frame Structure Design Using Landmarks for interactive Light Field Streaming", in Proceeding of IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP2012), pp.1445-1448, Kyoto, Japan, March 25-30 2012.

[10] **Wei Cai**, Min Chen, Takahiro Hara, Lei Shu and Taekyoung Kwon, "A Genetic Algorithm Approach to Multi-Agent Itinerary Planning in Wireless Sensor Network", ACM/Springer Mobile Networks and Applications (MONET), Vol.16, No.6, pp. 782-793, DOI: 10.1007/s11036-010-0269-z, November 2011. (SCI Journal)

[11] **Wei Cai**, Gene Cheung, Ted Taekyoung Kwon and Sung-Ju Lee, "Optimized Frame Structure for Interactive Light Field Streaming with Cooperative Cache", in Proceeding of IEEE International Conference on Multimedia and Expo (ICME2011), pp.1-6, Barcelona, Spain, July 2011.

[12] **Wei Cai**, Xianghao Li, Xiaoxuan Bai, Sishen Zhou, Taekyoung Kwon and Yanghee Choi, "How do we make friends in Online Social Networks", in Proceeding of Korea Information and Communications Society Winter Conference '11 (KICS2011Winter), Yongpyong, Gangwondo, Korea, February, 2011.

[13] **Wei Cai**, Xiaofei Wang, Min Chen and Yan Zhang, "MMOPRG Traffic Measurement, Modeling and Generator over WiFi and WiMax", in Proceeding of IEEE Global Communications Conference (GLOBECOM2010), pp.1-5, Miami, Florida, USA, December, 2010.

[14] **Wei Cai**, Zhijun Chen, Xinlong Feng, and Wenhua Zeng, "A Multi-Agent Grouping Algorithm in Wireless Sensor Networks", Journal of System Simulation, Vol.22, No.12, pp.2890-2894, Dec, 2010. (ISSN: 1004-731X) (in Chinese)

[15] Min Chen, **Wei Cai**, Sergio Gonzalez, and Victor C.M. Leung, "Balanced Itinerary Planning for Multiple Mobile Agents in Wireless Sensor Networks", in Proceeding of the Second International Conference on Ad Hoc Networks (ADHOCNETS2010), pp. 416-428, Victoria, British Columbia, Canada, August, 2010.

[16] **Wei Cai**, Min Chen, Takahiro Hara and Lei Shu, "GA-MIP: Genetic Algorithm based Multiple Mobile Agents Itinerary Planning in Wireless Sensor Network", in Proceeding of the 5th Annual International Wireless Internet Conference (WICON2010), pp.1-8, Singapore, March, 2010.

[17] Min Chen, Wen Ji, Xiaofei Wang, **Wei Cai** and Lingxia Liao, "Opportunistic Routing for Load-balancing and Reliable Data Dissemination in Wireless Sensor Networks", Mobile Opportunistic Networks, Auerbach Publications Press, ISBN: 978-1-4200-8812-0, 03/15/2010.

[18] **Wei Cai**, Min Chen, Xiaofei Wang, Taekyoung Kwon and Yanghee Choi, "Angle Gap (AG) based Grouping Algorithm for Multi-Mobile Agents Itinerary Planning in Wireless Sensor Networks", in Proceeding of Korea Information and Communications Society Fall Conference '09 (KICS2009Fall), Suwon, Korea, November, 2009.

[19] Xiaofei Wang, **Wei Cai**, Ye Yan, Taekyoung Kwon, Yanghee Choi and Wenhua Zeng, "A Framework of Distributed Dynamic Multi-Radio Multi-Channel Multi-Path Routing Protocol in Wireless Mesh Network", in Proceeding of International Conference on Information Networking (ICOIN2009), pp. 112-116, Chiang Mai, Tailand, January, 2009.