Kenneth Wai-Ting LEUNG, PhD

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Research Interests

Information retrieval and mobile data management. Specifically, I am interested in research topics including *personalized web search*, *social information retrieval, mobile information retrieval, privacy preserving information retrieval, location-based services, semantic networks*, and *web mining*.

Education

2006 – 2010	*Doctor of Philosophy (Ph.D.) in Computer Science and Engineering* **Hong Kong University of Science and Technology** Overall CGA: A-
2002 – 2004	*Master of Science (M.Sc.) in Computer Science* **Hong Kong University of Science and Technology** Overall CGA: A-
1998 – 2002	*Bachelor of Science (B.Sc.) in Computer Science* **Univerity of British Columbia, Canada** Overall GGA: 85.8%
1997 – 1998	**Windsor Secondary School, North Vancouver, Canada**
1992 – 1998	**St. Francis Xavier's School, Hong Kong**

Work Experience

01/2011 – Present	*Visiting Assistant Professor* **Hong Kong University of Science and Technology** Teaching both postgraduate and undergraduate courses, and facilitating the IR research group together with Prof. Dik Lun LEE and Prof. Wilfred NG.
09/2010 – 01/2011	*Postdoctoral Research Fellow* **Hong Kong University of Science and Technology** Facilitating the IR group together with Prof. Dik Lun LEE and Prof. Wilfred NG. Assisting in the preparation of RGC research proposal.
06/2006 – 08/2010	*Teaching Assistant and Research Assistant* **Hong Kong University of Science and Technology** Teaching both undergraduate and postgraduate courses in the department of Computer Science and Engineering.
10/2004 – 03/2006	*Software Engineer* **WE3 Technology Company Limited** Development of wireless software applications for advanced wireless devices.

09/2001 – 12/2001	*Teaching Assistant* **University of British Columbia** Teaching undergraduate courses in the department of Computer Science.
01/2001 – 04/2001	*Software Engineering Project: On-line Photo Gallery System* **University of British Columbia** Designing and implementing a web-based system for organizing and presenting photos.

Grants

RGC/GRF	**Community Clickthrough Model and Community Refinement for Query Recommendation (Project Number 615113)** Co-Investigator, RGC General Research Fund, HK $500,000, Sep 20, 2013 to Sep 19, 2015 (2 years).

Awards

HKUST	**Oversea Research Award** Award scheme that offers selected students to work in an oversea institution, 2010. **Research Travel Grant** Grant award to support the cost of travel to IEEE ICDE conference, 2010. **Postgraduate Studentship** Studentship allocated to full-time research postgraduate students, 2006-2010.
UBC	**Member of the Golden Key International Honor Society** **First Class Standing** Overall GPA > 85% in the University of British Columbia, 2002. **Undergraduate Scholar Program Scholarship** Academic average of at least 85.00% on best 27 credits, 2001. **UBC Dean's Honour List** Academic average of 85% or higher, 2000-2001. **J Fred Muir Memorial Scholarship in Science** Offered to students on the recommendation of the Faculty of Science, 2000. **British Columbia Government Scholarship** Offered to students with outstanding performance on the provincial examinations, 1998.

Publications

Journal	Vosecky, J., Jiang, D., **Leung, K.W.-T.**, and Ng, W., "Integrating Social and Auxiliary Semantics for Multi-Faceted Topic Modeling in Twitter", ACM Transactions on Internet Technology (TOIT), 2014. (To Appear)
2	Song, Y., Ng, W., **Leung, K.W.-T.**, Fang, Q., SFP-Rank: Significant Frequent Pattern Analysis for Effective Ranking, *Knowledge and Information Systems*, 2014. (To Appear)

3	**Leung, K.W.-T.**, Lee, D.L., and Lee, W.-C., "PMSE: A Personalized Mobile Search Engine", *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, Vol. 25 No. 4, Apr 2013, 820-834.
4	**Leung, K.W.-T.**, Lee, D.L., Ng, W., and Fung, H.Y., "A Framework for Personalizing Web Search with Concept-Based User Profiles", ACM Transactions on Internet Technology (TOIT), Vol. 11, No. 4, Mar 2012, 17:1-17:29.
5	**Leung, K.W.-T.**, and Lee, D.L., "Deriving Concept-based User Profiles from Search Engine Logs," IEEE Transactions on Knowledge and Data Engineering (TKDE), Vol. 22, No. 7, Jul 2010, 969-982.
6	**Leung, K.W.-T.**, Ng, W., and Lee, D.L., "Personalized Concept-Based Clustering of Search Engine Queries," IEEE Transactions on Knowledge and Data Engineering (TKDE), Vol. 20, No. 11, Nov 2008, 1505-1518.
Conference	Vosecky, J., **Leung, K.W.-T.**, and Ng, W., Personalized Twitter Search with Topic-Language Models, Proc. of SIGIR Conference, Gold Coast, Australia, 2014. (Acceptance Rate 21%, To Appear)
2	Jiang, D., **Leung, K.W.-T.**, and Ng, W., Fast Topic Discovery From Web Search Streams, Proc. of WWW Conference, Seoul, Korea, 2014. (Acceptance Rate 12.9%, To Appear)
3	Jiang, D., **Leung, K.W.-T.**, Vosecky, J., and Ng, W., Personalized Query Suggestion With Diversity Awareness, Proc. of ICDE Conference, Chicago, USA, 2014. (Acceptance Rate 19.9%, To Appear)
4	Vosecky, J., Jiang, D., **Leung, K.W.-T.**, and Ng, W., Dynamic Multi-Faceted Topic Discovery in Twitter, Proc. of CIKM Conference, San Francisco, USA, 2013. (Acceptance Rate 18.5%, To Appear)
5	Zhao, P., **Leung, K.W.-T.**, and Lee, D.L., Mining Individual User's Future Interest From Search Engine Log, Proc. of DASFAA Conference, Wuhan, China, 2013. (Acceptance Rate <25%)
6	Jiang, D., **Leung, K.W.-T.**, Ng, W., and Li, H., Beyond Click Graph: Topic Modeling for Search Engine Query Log Analysis, Proc. of DASFAA Conference, Wuhan, China, 2013. **(Best Student Paper Runner-Up)**
7	Song, Y., **Leung, K.W.-T.**, Fang, Q., and Ng, W., FP-Rank: An Effective Ranking Approach Based on Frequent Pattern Analysis, Proc. of DASFAA Conference, Wuhan, China, 2013. (Acceptance Rate <25%)
8	Jiang, D., Vosecky, J., Ng, W., and **Leung, K.W.-T.**, Panorama: A Semantic-Aware Application Search Framework, Proc. of EDBT Conference, Genoa, Italy, 2013. (Acceptance Rate 20%)
9	Jiang, D., Vosecky, J., **Leung, K.W.-T.**, and Ng, W., A Framework For Geographic Web Search Topic Discovery, Proc. of CIKM Conference, Burlingame, USA, 2012. (Acceptance Rate 15%)

10	Vosecky, J., **Leung, K.W.-T.**, Ng, W., "Searching for Quality Microblog Posts: Filtering and Ranking based on Content Analysis and Implicit Links", Proc. of DASFAA Conference, Busan, South Korea, 2012. (Acceptance Rate 27.6%)
11	Jiang, D., **Leung, K.W.-T.**, and Ng, W., "Context-Aware Search Personalization with Concept Preference", Proc. of CIKM Conference, Glasgow, Scotland, 2011. (Acceptance Rate 15%)
12	**Leung, K.W.-T.**, Lee, D.L., and Lee, W.-C., "CLR: A Collaborative Location Recommendation Framework based on Co-Clustering," Proc. of SIGIR Conference, Beijing, China, 2011. (Acceptance Rate: 19.8%, To Appear)
13	**Leung, K.W.-T.**, Fung, H.Y., and Lee, D.L., " Applications of Concept Relation Network to Web Search," International Workshop on Linked Web Data Management, Uppsala, Sweden, 2011.
14	**Leung, K.W.-T.**, Fung, H.Y., and Lee, D.L., "Constructing Concept Relation Network and its Application to Personalized Web Search," Proc. of EDBT Conference, Uppsala, Sweden, 2011. (Acceptance Rate 27.7%)
15	**Leung, K.W.-T.**, and Lee, D.L., "Dynamic Agglomerative-Divisive Clustering of Clickthrough Data for Collaborative Web Search," Proc. of DASFAA Conference, Tsukuba, Japan, 2010, 635-642. (Acceptance Rate 30%)
16	**Leung, K.W.-T.**, Lee, D.L., and Lee, W.-C., "Personalized Web Search with Location Preferences," Proc. of ICDE Conference, Long Beach, USA, 2010. (Acceptance Rate: 12.5%)
17	Lee, D.L., **Leung, K.W.-T.**, Ng, Lee, W.-C., Chan, T., Chan, T.M., and Iu, K.H., "Performance of Preference Mining Methods on Search Engines," 1st International Conference on Ubiquitous Information Management and Communication (ICUIMC), Seoul, Korea, 2007. (Invited Paper)
18	**Leung, K.W.-T.**, Lee, D.L., Ng, W., Lee, W.-C., Chung, T.K., Ma, P.Y., Tse, C.C., and Wong, C.Y., "Discovering User Communities from Clickthough Data," 1st International Conference on Ubiquitous Information Management and Communication (ICUIMC), Seoul, Korea, 2007. (Invited Paper)
19	Chan, V.W., **Leung, K.W.-T.**, and Lee, D.L., "Clustering Search Engine Query Log Containing Noisy Clickthroughs," Proc. of SAINT Conference, Tokyo, Japan, 2004, 305-308.

Teaching

Fall2014	**COMP4021 Internet Computing**
	COMP4431 Multimedia Computing
Summer2014	**COMP4021 Internet Computing**
Spring2014	**COMP4311 Principles of Database Design**

	CSIT5300 Advanced Database Systems PG Course for M.Sc. students.
Fall2013	**COMP1001 Exploring Multimedia and Internet Computing** Common Core Course, Flipped Classroom.
Summer2013	**COMP4021 Internet Computing**
Spring2013	**COMP4332/RMBI4310 Advanced Data Mining**
Fall2012	**COMP4431 Multimedia Computing**
	COMP1941 Computational Thinking for Everyone in the Internet Age Common Core Course available for all UG students.
Summer2012	**COMP4021 Internet Computing**
Spring2012	**COMP4021 Internet Computing**
	Shadowing Program with Fukien Secondary School 1 week collaborative program with Fukien Secondary School to involve and supervise secondary school students in HKUST research and study.
Fall2011	**COMP6311 Topics in DB: Mobile and Location-Based Search** PG Course, Co-taught with Prof. Dik Lun LEE. **COMP4431 Multimedia Computing**
	COMP4021 Internet Computing
	COMP2711 Discrete Mathematical Tools for Computer Science
Spring2011	**COMP343 Multimedia Computing** **COMP170 Discrete Mathematical Tools for Computer Science**
Spring2010	**COMP630 Mobile Search Engine**
Spring2007	**COMP630 Internet and Mobile Information Retrieval** **CSIT531 Information Retrieval on Internet and Mobile Networks** **COMP336 Search Engines for Web and Enterprise Data**
Fall2006	**COMP104H/171H Programming Fundamentals and Methodologies/ Data Structures and Algorithms (Honored Track)**
Fall2002	**CPSC152 Principles of Software Development**

Professional Activities

Conference Reviewer	ACM GIS, ACM SAC, CIKM, DEXA, ECIR, FoIKS, ICDE, KES, MDM, PAKDD, VLDB, WAIM, WISE
Journal Reviewer	ACM TOIT, ACM TOIS, ACM TSIT, IEEE ICSI, IEEE SMCA, IEEE TKDE, IJCA, INS, JISE

University Service

University and SENG	School-level Faculty Advisor (SFA) for first year SENG students
	President's Cup Selection Committee

CSE	Joint University Programmes Admissions System (JUPAS) Interviewer
	UG Student Recruitment and Outreach Committee
	Outcome-based Committee
	Representatives in CPEG Committee
	Final Year Project (FYP) Reader

Supervised FYP Projects

2011-2012	Summarization of Tweets for Easy Understanding and Interactive Exploration (DL1)
	Using Social Knowledge for Collaborative Search (DL2)
	Mobile Web Search (DL3-1)
	Collaborative and Social Web Search (DL3-2)
2010-2011	SoJetso - A Location-Based Mobile Application (DL1)
	Collaborative Location Recommender - ProSearch (DL3)
	Community-based Web Search (DL4)
2009-2010	Reading a Million Words in One Minute (DL4)
	Mobile Application with User Interests and Activity Profiling (DL3)
2008-2009	Community-Based Search Engine (DL1)
2007-2008	An Ontology-based Personalized Search Engine (DL3)
2006-2007	Clustering of Clickthrough Data (DL2)
	Personalized Search Engine (DL1)
	Location-based Visual Tour (DL4)
	Indoor Floor Plan Modeler and Service Provider (DL3)
	Automated Robotics System (DL2)
	Smart Parking Space Allocation System (DL1)

Coursework (undergraduate work)

UG Courses	Artificial Intelligence (A-)	Computer Graphics (A-)
	Analysis of Algorithms (A)	Numerical Computation (A+)
	Database Systems (A)	Software Engineering (A-)
	Probability Theory (A)	Abstract Data Types (A-)
	Modeling and Simulation (A)	Computational Algebra (A+)

Language Skills

Languages	English (Fluent)
	Cantonese (Native)
	Chinese (Fluent)
	Japanese (Fluent)

References

1   **Prof. Dik Lun, LEE, Professor**
    Department of Computer Science and Engineering
    Hong Kong University of Science and Technology
    Tel: (852) 2358-7017 Email: dlee@cse.ust.hk

2   **Prof. Wilfred, NG, Associate Professor**
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3   **Prof. Wang-Chien, LEE, Associate Professor**
    Department of Computer Science and Engineering
    Pennsylvania State University
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