CURRICULUM VITAE

Pu-Jen Cheng

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EDUCATION

1994/09 ~ 2001/05	Ph.D., Dept. of Computer and Information Science, National Chiao-Tung University.
1990/09 ~ 1994/06	B.A., Dept. of Computer and Information Science, National Chiao-Tung University.

EMPLOYMENT

2014/08 ~ present	Associate Professor, Dept. of Computer Science and Information Engineering, National Taiwan University
2006/08 ~ 2014/07	Assistant Professor, Dept. of Computer Science and Information Engineering, National Taiwan University
2001/10 ~ 2006/06	Postdoctoral Fellow, Institute of Information Science, Academia Sinica
2001/07 ~ 2001/10	Military Service
2001/05 ~ 2001/07	Project Manager, VisionNEXT Corporation

RESEARCH INTERESTS

Information Retrieval, Text Mining, Machine Learning, Information Extraction, Multimedia Databases, Chinese Information Processing

AWARDS & HONORS

- Google Research Award, 2007
- Microsoft Research Award, 2008
- ROCLING Best Paper Award, 2009
- ACM ICPC Coach Award, 2012
- MOST Undergraduate Student Research Supervision Award, 2012
- Excellent Teaching Award, National Taiwan University, 2014
- Excellent Teaching Award, National Taiwan University, 2015

- ACLCLP Master Thesis Supervision Award, 2015
- TAAI Master Thesis Supervision Award, 2015
- Excellent Teaching Award, National Taiwan University, 2016
- Microsoft Research Award, 2016
- ACLCLP Master Thesis Supervision Award, 2018

ACLCLP: Association for Computational Linguistics and Chinese Language Processing
ICPC: International Collegiate Programming Contest
MOST: Ministry of Science and Technology, Taiwan
TAAI: Taiwanese Association for Artificial Intelligence
ROCLING: Conference on Computational Linguistics and Speech Processing

PUBLICATIONS

Journal Articles:

1. Jian-De Jiang, Jyun-Yu Jiang, and Pu-Jen Cheng. Cocluster Hypothesis and Ranking Consistency for Relevance Ranking in Web Search. *Journal of the Association for Information Science and Technology* (**JASIST**), pp. 1~12, 2019. (SCI, SSCI, IF: 2.835)

2. Yuh-Harn Yang, Pu-Jen Cheng, and Feng-Chi Chen. Predicting Institution Decisions in Inter Partes Review Proceedings. *Journal of the Patent and Trademark Office Society* (**JPTOS**) 100 (4), pp. 697~717, 2019.

3. Yan-Ming Lai, Pu-Jen Cheng, Cheng-Chi Lee, and Chia-Yi Ku. A New Ticket-Based Authentication Mechanism for Fast Handover in Mesh Network. *PLOS ONE* 11 (5), pp. 1~18, 2016. (SCI, IF: 2.766)

4. Cheng-Chi Lee, Yan-Ming Lai, and Pu-Jen Cheng. An Efficient Multiple Session Key Establishment Scheme for VANET Group Integration. *IEEE Intelligent Systems* 32 (6), pp. 35~43, 2016. (SCI, IF: 2.596)

5. Wei-Yen Day, Chun-Yi Chi, Ruey-Cheng Chen, and Pu-Jen Cheng. Sampling the Web as Training Data for Text Classification. International Journal of Digital Library Systems (**IJDLS**) 1(4), pp. 24~42, 2010.

6. Pu-Jen Cheng and Lee-Feng Chien. Effective Image Annotation for Search Using Multi-Level Semantics. *Journal of Digital Libraries: Special Issue on Asian Digital Libraries*, pp. 258-271, 2004.

7. Pu-Jen Cheng and Wei-Pang Yang. Composition and Retrieval of Visual Information for Video Databases. *Journal of Visual Languages and Computing* 12(6), pp. 627-656, 2001. (SCI)

8. Pu-Jen Cheng and Wei-Pang Yang. A New Content-Based Access Method for Video Databases. Information Science 118, pp. 37-73, 1999. (SCI, EI)

Conference Proceedings:

1. Hao-Ming Fu and Pu-Jen Cheng. Learning Unsupervised Semantic Document Representation for Fine-grained Aspect-based Sentiment Analysis. In *Proc. of ACM-SIGIR International Conference on Research and Development in Information Retrieval* (**SIGIR**), 2019. (Accepted)

2. Chun-Chih Wang and Pu-Jen Cheng. Translating Representations of Knowledge Graphs with Neighbors. In *Proc. of ACM-SIGIR International Conference on Research and Development in Information Retrieval* (**SIGIR**), pp. 917~920, 2018.

3. Jyun-Yu Jiang, Pu-Jen Cheng, and Wei Wang. Open Source Repository Recommendation in Social Coding. In *Proc. of ACM-SIGIR International Conference on Research and Development in Information Retrieval* (**SIGIR**), pp. 1173~1176, 2017.

4. Yen-Chieh Lien and Pu-Jen Cheng. Improving One-Class Collaborative Filtering with Manifold Regularization by Data-Driven Feature Representation. In *Proc. of Pacific-Asia Conference Advances in Knowledge Discovery and Data Mining* (**PAKDD**), pp. 565~577, 2017. (**Acceptance rate: 28.2%**)

5. Ting-Yi Shih, Ting-Chang Hou, Jian-De Jiang, Yen-Chieh Lien, Chia-Rui Lin, and Pu-Jen Cheng. Dynamically Integrating Item Exposure with Rating Prediction in Collaborative Filtering. In *Proc. of ACM-SIGIR International Conference on Research and Development in Information Retrieval* (**SIGIR**), pp. 813~816, 2016.

6. Jyun-Yu Jiang and Pu-Jen Cheng. Classifying User Search Intents for Query Auto-Completion. In *Proc. of ACM International Conference on the Theory of Information Retrieval* (**ICTIR**), pp. 49~58, 2016.

7. Jyun-Yu Jiang, Jing Liu, Chin-Yew Lin, and Pu-Jen Cheng. Improving Ranking Consistency for Web Search by Leveraging a Knowledge Base and Search Logs. In *Proc. of ACM International Conference on Information and Knowledge Management* (**CIKM**), pp. 1441~1450, 2015. (**Acceptance rate: 25.5%**)

8. Pao-Yu Chien and Pu-Jen Cheng. Semantic Tagging of Mathematical Expressions. In *Proc. of International World Wide Web Conference* (**WWW**), pp. 195~204, 2015. (**Acceptance rate: 14.1%**)

9. Jyun-Yu Jiang, Chin-Yew Lin, and Pu-Jen Cheng. Entity-Driven Type Hierarchy Construction for Freebase. In *Proc. of International World Wide Web Conference* (**WWW**), pp. 47~48, 2015.

10. Cheng-Hsuan Tsai, Yen-Chieh Lien, and Pu-Jen Cheng. Modelling Item Sequences by Overlapped Markov Embeddings. In *Proc. of Wireless and Optical Communication Conference* (**WOCC**), pp. 154~158, 2015.

11. Cheng-Chi Lee, Yan-Ming Lai, and Pu-Jen Cheng. An Efficient Multiple Session Key Establishment Scheme for VANET Group Integration. In *Proc. of IEEE Intelligent Vehicles Symposium* (**IV**), pp. 1316~1321, 2015.

12. Jyun-Yi Jiang, Yen-Yu Ke, Pao-Yu Chien, and Pu-Jen Cheng. Learning User Reformulation Behavior for Query Auto-completion. In *Proc. of ACM-SIGIR International Conference on Research and Development in Information Retrieval* (**SIGIR**), pp. 445~454, 2014. (**Acceptance rate: 21.2%**)

13. Cheng-Ta Chung, Chia-Jui Lin, Chih-Hung Lin, and Pu-Jen Cheng. Person Identification between Different Online Social Networks. In *Proc. of IEEE/WIC/ ACM International Conference on Web Intelligence* (**WI**), pp. 94~101, 2014.

14. Chung-Lun Chiang, Shih-Ying Chen, and Pu-Jen Cheng. Summarizing Search Results with Community-Based Question Answering. In *Proc. of IEEE/WIC/ ACM International Conference on Web Intelligence* (**WI**), pp. 254~261, 2014.

15. Hui-Ju Hung and Pu-Jen Cheng. Query Prediction by Currently-browsed Web Pages and Its Applications. In *Proc. of International Workshop on Mobile Data Management, Mining, and Computing on Social Networks* (**MobiSocial**), pp. 181~193, 2014.

16. Pei-Ying Huang, Hsin-Yu Liu, Chin-Hui Chen, and Pu-Jen Cheng. The Impact of Social Diversity and Dynamic Influence Propagation for Identifying Influencers in Social Networks. In *Proc. of IEEE/WIC/ACM International Conference on Web Intelligence* (**WI**), pp. 410~416, 2013. (**Acceptance rate: 25.3%**)

17. Pei-Ying Huang, Hsin-Yu Liu, Chun-Ting Lin, and Pu-Jen Cheng. A Diversity-dependent Measure for Discovering Influencers in Social Networks. In *Proc. of Asia Information Retrieval Societies Conference* (**AIRS**), pp. 368~379, 2013. (**Acceptance rate: 24.8%**)

18. Rui Yan, Xiaojun Wan, Mirella Lapata, Wayne Xin Zhao, Pu-Jen Cheng, and Xiaoming Li. Visualizing Timelines: Evolutionary Summarization via Iterative Reinforcement between Text and Image Streams. In *Proc. of ACM International Conference on Information and Knowledge Management* (**CIKM**), pp. 275~284, 2012. (**Acceptance rate: 13.4%**)

19. Po-Tzu Chang, Yen-Chieh Huang, Cheng-Lun Yang, Shou-De Lin, and Pu-Jen Cheng. Learning-based Time-sensitive Re-ranking for Web Search. In *Proc. of ACM-SIGIR International Conference on Research and Development in Information Retrieval* (**SIGIR**), pp. 1101~1102, 2012.

20. Yi-Shiang Tzeng, Jyun-Yu Jiang and Pu-Jen Cheng. Event Duration Detection on Microblogging. In *Proc. of IEEE/WIC/ACM International Conference on Web Intelligence* (**WI**), pp. 16~23, 2012.

21. Jyun-Yu Jiang, Yi-Shiang Tzeng, Pei-Ying Huang, and Pu-Jen Cheng. Analyzing the Spatiotemporal Effects on Detection of Rain Event Duration. In *Proc. of Asia Information Retrieval Societies Conference* (**AIRS**), pp. 506~517, 2012.

22. Ting-Chu Lin and Pu-Jen Cheng. Query Sampling for Learning Data Fusion. In *Proc. of ACM International Conference on Information and Knowledge Management* (**CIKM**), pp. 141~146, 2011.

23. Che-An Lu, Chin-Hui Chen, and Pu-Jen Cheng. Clustering and Visualizing Geographic Data Using Geo-tree. In *Proc. of IEEE/WIC/ACM International Conference on Web Intelligence* (**WI**), pp. 479~482, 2011. (**Acceptance rate: 20.5%**)

24. Chien-Chin Su and Pu-Jen Cheng. Recommend at Opportune Moments. In *Proc. of Asia Information Retrieval Societies Conference* (**AIRS**), pp. 226~237, 2011. (**Acceptance rate: 24%**)

25. Chia-Jung Lee, Chin-Hui Chen, Shao-Hang Kao, and Pu-Jen Cheng. To Translate or Not To Translate? In *Proc. of ACM-SIGIR International Conference on Research and Development in Information Retrieval* (**SIGIR**), pp. 651~658, 2010. (**Acceptance rate: 16.7%**)

26. Chien-Wen Chen and Pu-Jen Cheng. Title-Based Product Search - Exemplified in a Chinese E-commerce Portal. In *Proc. of Asia Information Retrieval Societies Conference* (**AIRS**), pp. 25~36, 2010. (**Acceptance rate: 21.6%**)

27. Shao-Hang Kao, Wei-Yen Day, and Pu-Jen Cheng. An Aesthetic-Based Approach to Re-ranking Web Images. In *Proc. of Asia Information Retrieval Societies Conference* (**AIRS**), pp. 610~623, 2010. (**Acceptance rate: 21.6%**)

28. Wei-Yen Day, and Pu-Jen Cheng. Visualizing Image Query Senses by Social Tags. In *Proc. of SIGIR 2010 Workshop on Query Representation and Understanding*, pp. 5~8, 2010.

29. Chia-Jung Lee, Ruey-Cheng Chen, Shao-Hang Kao, and Pu-Jen Cheng. A Term Dependency-based Approach for Query Terms Ranking. In *Proc. of ACM International Conference on Information and Knowledge Management* (**CIKM**), pp. 1267~1276, 2009. (**Acceptance rate: 14.5%**)

30. Jen-Wei Kuo, Pu-Jen Cheng, and Hsin-Min Wang. Learning to Rank from Bayesian Decision Inference. In *Proc. of ACM International Conference on Information and Knowledge Management* (**CIKM**), pp. 827~835, 2009. (**Acceptance rate: 14.5%**)

31. Chia-Jung Lee, Yi-Chun Lin, Ruey-Cheng Chen, and Pu-Jen Cheng. Selecting Effective Terms for Query Formulation. In *Proc. of Asia Information Retrieval Symposium* (**AIRS**), pp. 168~180, 2009. (**Acceptance rate: 23%**)

32. Chia-Jung Lee, Yi-Chun Lin, Ruey-Cheng Chen, Pei-Sen Liu, and Pu-Jen Cheng. Query Formulation by Selecting Good Terms. In *Proc. of Conference on Computational Linguistics and Speech Processing* (**ROCLING**), pp. 69~83, 2009. (**Best paper award**)

33. Wei-Yen Day, Chun-Yi Chi, Ruey-Cheng Chen, Pu-Jen Cheng, and Pei-Sen Liu. Web Mining for Unsupervised Classification. In *Proc. of Conference on Computational Linguistics and Speech Processing* (**ROCLING**), pp. 53~67, 2009.

Books & Book Chapters:

1. Man-Kwan Shan, Shou-De Lin, Pu-Jen Cheng (Eds.): 2017 Conference on Technologies and Applications of Artificial Intelligence, TAAI 2017, Taipei, Taiwan, December 1-3, 2017. *Proceedings. IEEE Computer Society* 2017, ISBN 978-1-5386-4203-0.

2. Pu-Jen Cheng, Min-Yen Kan, Wai Lam, Preslav Nakov (Eds.): Information Retrieval Technology - 6th Asia Information Retrieval Societies Conference, AIRS 2010, Taipei, Taiwan, December 1-3, 2010. *Proceedings. Springer* 2010 *Lecture Notes in Computer Science*, ISBN 978-3-642-17186.

3. Yung-Teng Tsai et al. (Eds.): Introduction to Digital Archives Technology. November 2007. *National Taiwan University Press*, ISBN 978-986-01-0938-2. (Chapter 4: Information Retrieval Technology)

PROFESSIONAL ACTIVITIES

- Associate Editors, International Journal of Computational Linguistics and Chinese Language Processing (**IJCLCLP**), 2008~2012, 2016~present
- Editorial Board, International Journal of Digital Library Systems (**IJDLS**), 2009~present
- Director, ACM-ICPC Contest Council for Taiwan, 2013~present
- Conference Chair, Conference on Technologies and Applications of Artificial Intelligence (**TAAI**), 2017.
- Conference Chair, Asia Information Retrieval Symposium (**AIRS**), 2010.
- Workshop Chair, ROCLING IR Workshop, 2011, 2013~2016, 2018
- Working Group Coordinator, The Association for Computational Linguistics and

Chinese Language Processing, 2015~present

- Technical PC Chair, Wireless and Optical Communication Conference, 2015
- Area Chair, International Joint Conference on Natural Language Processing (**IJCNLP**), 2013.
- OC Member, Asian Summer School in Information Access, 2015
- OC Member, International Conference on Digital Archive Technologies, 2005~2006.
- PC Member, Annual Meeting of the Association for Computational Linguistics (**ACL**), 2008~2009, 2013~2014, 2017~2019
- PC Member, ACM International Conference on Web Search and Data Mining (**WSDM**), 2017, 2018
- PC Member, International ACM-SIGIR Conference on Research and Development in Information Retrieval (**SIGIR**), 2007~2008, 2010~2012, 2018
- PC Member, International Joint Conference on Artificial Intelligence (**IJCAI**), 2018
- PC Member, Conference on Empirical Methods in Natural Language Processing (**EMNLP**), 2007, 2009, 2018
- PC Member, International Conference on Computational Linguistics (**COLING**), 2016, 2018
- PC Member, International Joint Conference on Natural Language Processing (**IJCNLP**), 2017
- PC Member, Conf. on Computational Linguistics and Speech Processing (**ROCLING**), 2007, 2012~2014, 2016~2017
- PC Member, IEEE International Conference on Big Data and Smart Computing (**BigComp**), 2016, 2017
- PC Member, The Asia Information Retrieval Societies Conference (**AIRS**), 2008, 2013, 2018
- PC Member, International Conference on Computer Science and Information Technology, 2018
- PC Member, International Conference on Emerging Databases, 2016
- Judge, Microsoft's and IEEE's Annual Beauty of Programming Contest, 2014
- PC Member, Pacific Asia Conference on Language, Information, and Computation (**PACLIC**), 2013.
- PC Member, AAAI Conference on Artificial Intelligence (**AAAI**), 2011~2012.
- PC Member, International Conference on Asian Digital Libraries (**ICADL**), 2007~2008.

• PC Member, IEEE Symposium on Visual Languages (**VL**), 2003.

SUPERVISION AWARDS

ICPC (*International Collegiate Programming Contest*) *is the premier global programming competition for the world's universities. It was held under the auspices of ACM and referred to as ACM-ICPC before 2017.*

• ACM ICPC World Finals 2010, 3rd place (Gold Medal) (7,319 teams, 82 countries)
• ACM ICPC World Finals 2013, 4th place (Gold Medal) (9,800 teams, 91 countries)
• ACM ICPC World Finals 2014, 4th place (Gold Medal) (10,681 teams, 94 countries)
• ICPC World Finals 2019, 5th place (Silver Medal) (13,422 teams, 102 countries)
• ICPC Asia Taipei Regional Contest 2018, 1st & 2nd places
• ICPC Asia Seoul Regional Contest 2018, 3rd place
• ICPC Asia Yokohama Regional Contest 2018, 3rd place
• ACM ICPC World Finals 2017, UPE First to Solve Problem J Award
• ACM ICPC Asia Hualien Regional Contest 2017, 1st place
• ACM ICPC Asia Jakarta Regional Contest 2017, 2nd place
• ACM ICPC Asia Chungli Regional Contest 2016, 1st, 2nd & 3rd places
• ACM ICPC Asia Manila Regional Contest 2016, 1st & 2nd places
• ACM ICPC Asia Jakarta Regional Contest 2016, 1st place
• ACM ICPC Asia Taipei Regional Contest 2015, 2nd place
• ACM ICPC Asia Singapore Regional Contest 2015, 2nd place
• ACM ICPC Asia Phuket Regional Contest 2015, 2nd place
• ACM ICPC Asia Taichung Regional Contest 2014, 2nd & 3rd places
• ACM ICPC Asia Dhaka Regional Contest 2014, 2nd place
• ACM ICPC Asia Kuala Lumpur Regional Contest 2014, 2nd place
• ACM ICPC Asia Bangkok Regional Contest 2014, 3rd place
• ACM ICPC World Finals 2013, First Solution Award
• ACM ICPC World Finals 2013, UPE First to Solve Problem F Award
• Trend Micro Big Data Innovation Programming Contest 2013, 1st place
• ACM ICPC Asia Chiayi Regional Contest 2013, 1st place
• ACM ICPC Asia Seoul Regional Contest 2013, 2nd place
• ACM ICPC Asia Jakarta Regional Contest 2013, 2nd place
• ACM ICPC Asia Aizu Regional Contest 2013, 2nd place
• ACM ICPC Asia Phuket Regional Contest 2013, 3rd place

- ACM ICPC Asia Jakarta Regional Contest 2012, 1st place
- ACM ICPC Asia Kaohsiung Regional Contest 2012, 1st place
- ACM ICPC Asia Tokyo Regional Contest 2012, 2nd place
- ACM ICPC Asia Phuket Regional Contest 2011, 1st place
- ACM ICPC Asia Seoul Regional Contest 2011, 2nd place
- ACM ICPC Asia Manila Regional Contest 2011, 2nd place
- ACM ICPC Asia Kuala Lumpur Regional Contest 2011, 1st place
- ACM ICPC Asia Kaohsiung Regional Contest 2010, 1st place
- ACM ICPC Asia Jakarta Regional Contest 2010, 1st place
- ACM ICPC Asia Seoul Regional Contest 2010, 2nd place
- Yahoo! Open Hack Day 2009, Distinguished Honor Award
- ACM ICPC Asia Tehran Regional Contest 2009, 1st place
- ACM ICPC Asia Jakarta Regional Contest 2009, 2nd place
- ACM ICPC Asia Tokyo Regional Contest 2009, 3rd place
- ACM ICPC Asia Hsinchu Regional Contest 2009, 3rd place
- ACM ICPC Asia Kuala Lumpur Regional Contest 2008, 2nd place
- ACM ICPC Asia Tokyo Regional Contest 2008, 2nd place
- ACM ICPC Asia Taipei Regional Contest 2008, 3rd place
- ACM ICPC Asia Kaohsiung Regional Contest 2007, 1st & 2nd places
- ACM ICPC Asia Amritapuri Regional Contest 2007, 1st place

RESEARCH GRANTS

- Context-Aware Sentiment Analysis, Summarization and Visualization in Social Media and News Content, *Ministry of Science and Technology*, MOST-105-2420-H-002-055-MY3, 2016~2019
- Exploiting the User Preference for Item Attributes in Recommendation, *Ministry of Science and Technology*, MOST-107-2221-E-002-166, 2018~2019
- AI Cup: News Stance Retrieval and Annotation Contest, *Ministry of Education*, 2018~2019
- AI Support for Social and Mental Activities of the Elderly, *Ministry of Science and Technology*, 2018~2021 (Co-PI)
- Predicting Institution Decisions of Patent Litigation: A Study on Inter Partes Review, *Ministry of Science and Technology*, 2018~2021 (Co-PI)
- How Do Fake News Affect Election? A Case Study on Taiwan Election on 2018 and 2010, *Ministry of Science and Technology*, 2018~2020 (Co-PI)

- Augmenting Item Exposure for Collaborative Filtering to Alleviate Item Cold-Start Problem, *Ministry of Science and Technology*, MOST-106-2221-E-002-210, 2017~2018
- Sentiment Analysis for Chinese and English Documents, *Research Center for Advanced Science and Technology*, 2017
- Learning Search-Result Consistency with Dual Clustering to Improve Retrieval Performance, *Ministry of Science and Technology*, MOST-105-2221-E-002-184, 2016~2017
- A Study on Static and Dynamic Social Influence for Online Social Networks, *Ministry of Science and Technology*, MOST-104-2221-E-002-194, 2015~2016
- Modeling and Analyzing User Reformulation Behavior for Query Prediction, *Ministry of Science and Technology*, MOST-103-2221-E-002-182, 2014~2015
- Automatic Event Duration Detection on Microblogging Data and Its Applications, *Ministry of Science and Technology*, MOST-102-2221-E-002-156, 2013~2014
- Geo-Tree: An Interactive System for Clustering and Visualizing Geographic Data, *Ministry of Science and Technology*, MOST-101-2221-E-002-202, 2012~2013
- Title-based Product Search for Chinese Online Marketplace, *Ministry of Science and Technology*, MOST-100-2221-E-002-230, 2011~2012
- Predicting the Effectiveness of Query Terms and Its Application on Query Translation for Cross-language Information Retrieval, *Ministry of Science and Technology*, MOST-99-2221-E-002-189, 2010~2011
- Web-based Unsupervised Classification and Its Applications on Search-Result Clustering, *Ministry of Science and Technology*, MOST-97-2221-E-002-222-MY2, 2008~2010

SELECTED INVITED SPEECHES

- 2019/05/21 Social Network Embedding
  Institute of Information Science, *Academia Sinica*
- 2019/03/22 Machine Learning and Its Applications to Medicine
  National Taiwan University Hospital
- 2018/03/06 Information Extraction and Data Mining
  National Science and Technology Center for Disaster Reduction
- 2017/12/29 Text Mining and Its Applications
  National Taiwan University Hospital
- 2017/12/19 Text Mining and Its Applications
  Cathay Financial Holdings
- 2017/01/17 Machine Learning for Web Search
  The Graduate Institute of Journalism, *National Taiwan University*

- 2016/04/29 Exploring Item Exposure for Recommendation
  Dept. of Information Management, *Tung-Hai University*
- 2016/04/14 Web Data Mining and Its Applications
  National Security Bureau
- 2015/03/12 Knowledge Discovery in Social Networks
  Dept. of Computer Science and Information Engineering,
  National Chia-Yi University
- 2014/05/23 Microblog Data Mining
  Dept. of Information Management, *Tung-Hai University*
- 2014/01/08 Event Duration Detection
  Dept. of Computer Science and Information Engineering,
  National Central University
- 2013/12/13 Translation Problem in Cross-language Information Retrieval
  ROCLING IR Workshop
- 2013/11/23 Modeling and Analyzing User Reformulation Behaviors for Query Suggestion
  Workshop on New Media/Multimedia, *Web*, *and Entertainment Technology*
- 2013/04/17 Context-aware Query Suggestion
  Workshop on Emerging Trends in the iField
- 2012/04/27 Product Search and Recommendation
  Dept. of Computer Science and Engineering, *Yuan Ze University*
- 2011/05/07 To Translate or Not to Translate?
  AI Forum
- 2010/12/31 Query Reformulation for Information Retrieval
  Dept. of Information Management, *National Taiwan University*
- 2010/12/03 Query Reformulation for Information Retrieval
  Workshop on Innovative Technology of Information Retrieval
- 2010/10/12 Automatic Query Reformulation for Information Retrieval
  Graduate Institute of Library and Information Studies,
  National Taiwan Normal University
- 2010/05/22 Ranking Query Terms for Formulating Effective Queries
  AI Forum
- 2010/05/18 Content-based Multimedia Retrieval
  Computational linguistics and Chinese Language processing
- 2010/05/11 Query Log Mining
  Computational linguistics and Chinese Language processing
- 2009/05/05 Web Data Mining for Improving IR Performance
  Computational linguistics and Chinese Language processing
- 2009/04/28 User Behavior Analysis
  Computational linguistics and Chinese Language processing
- 2009/02/19 Ranking Search Terms for Information Retrieval
  MSRA

SYSTEMS & DATA SETS

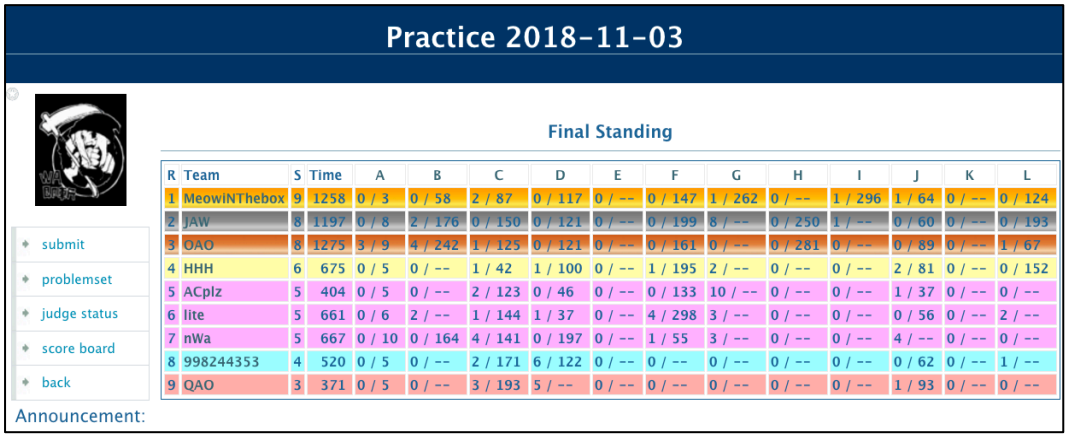
- NTU Online Judge System:
  URL: http://acm.csie.org
  Description: It's a website for hosting competitive programming contests and training NTU students to participate ACM ICPC contests. The system has collected 3023 problems, 502 contests, and 716 students registered. It helps NTU to win 3 gold medals in ACM ICPC World Finals (2010, 2013, 2014).

- Benchmark for Chinese News Stance Retrieval Task:
  URL: https://aidea-web.tw/topic/b6abbf14-2d60-456c-8cbe-34fdfcd58967
  Description: It's ad-hoc retrieval task for searching Chinese news documents, where queries must cover a stance on a controversial topic such as "support same-sex marriage." The task contains more than 800,000 news articles and 70 queries. The dataset and its annotations (ground truth) will be released after the competition.

REFERENCES

- NTU Online Judge System: The website hosting competitive programming contests is to train NTU students to participate ICPC programming contests. There are 3023 problems, 502 contests, and 716 students registered in the system.

- Example Contest in NTU Online Judge System:



R	Team	S	Time	A	B	C	D	E	F	G	H	I	J	K	L
1	MeowINThebox	9	1258	0 / 3	0 / 58	2 / 87	0 / 117	0 / --	0 / 147	1 / 262	0 / --	1 / 296	1 / 64	0 / --	0 / 124
2	JAW	8	1197	0 / 8	2 / 176	0 / 150	0 / 121	0 / --	0 / 199	8 / --	0 / 250	1 / --	0 / 60	0 / --	0 / 193
3	OAO	8	1275	3 / 9	4 / 242	1 / 125	0 / 121	0 / --	0 / 161	0 / --	0 / 281	0 / --	0 / 89	0 / --	1 / 67
4	HHH	6	675	0 / 5	0 / --	1 / 42	1 / 100	0 / --	1 / 195	2 / --	0 / --	0 / --	2 / 81	0 / --	0 / 152
5	ACplz	5	404	0 / 5	0 / --	2 / 123	0 / 46	0 / --	0 / 133	10 / --	0 / --	0 / --	1 / 37	0 / --	0 / --
6	lite	5	661	0 / 6	2 / --	1 / 144	1 / 37	0 / --	4 / 298	3 / --	0 / --	0 / --	0 / 56	0 / --	2 / --
7	nWa	5	667	0 / 10	0 / 164	4 / 141	0 / 197	0 / --	1 / 55	3 / --	0 / --	0 / --	4 / --	0 / --	0 / --
8	998244353	4	520	0 / 5	0 / --	2 / 171	6 / 122	0 / --	0 / --	0 / --	0 / --	0 / --	0 / 62	0 / --	1 / --
9	QAO	3	371	0 / 5	0 / --	3 / 193	5 / --	0 / --	0 / --	0 / --	0 / --	0 / --	1 / 93	0 / --	0 / --

• ACM ICPC World Finals 2014, 4th place (Gold Metal Award):

• ICPC World Finals 2019, 5th place (Silver Metal Award):

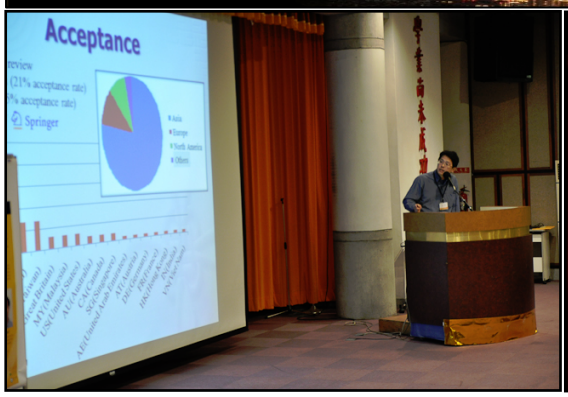
Place	Name	Solved	Time	Last solved
1	Moscow State University	10	1531	279
2	Massachusetts Institute of Technology	9	1191	278
3	The University of Tokyo	9	1386	297
4	University of Warsaw	8	891	292
5	National Taiwan University	8	1179	278
6	University of Wroclaw	8	1200	277
7	Seoul National University	7	783	146
8	KimChaek University of Technology	7	803	193
9	Sharif University of Technology	7	923	288
10	Moscow Institute of Physics & Technology	7	954	236
11	National Research University Higher School of Economics	7	990	273
12	The Chinese University of Hong Kong			

ICPC is considered as the "Olympics of Programming Competition." From among 13,422 teams chosen from 2,736 universities in 102 countries, we were in 5th place (silver medal) at ICPC World Finals 2019. We were

also the first team (and the only one team) solving problem J, one of the most difficult problems at World Finals 2017. It's worth mentioning that from among 10,681 teams chosen from 2,286 universities in 94 countries, we were in 4th place (gold medal) at World Finals 2014. This is the third time NTU teams I led were warded the highest honor, the gold medal (top 4 teams). Under my supervision, NTU teams have won 3 gold medals and 1 silver medal since 2010. The outstanding achievement has broken the best record ever set in Taiwan.

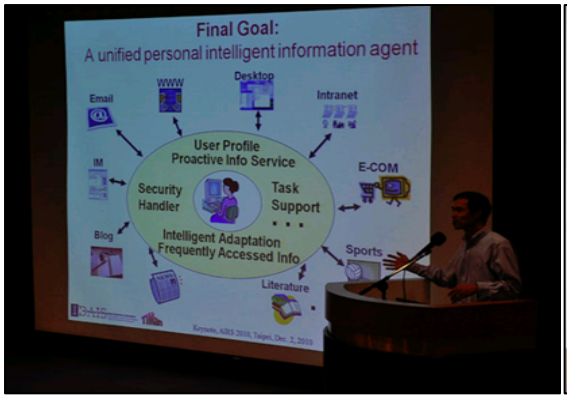
• AI Cup − Chinese News Stance Retrieval Task (2019/03~2019/11): It's the first ad-hoc retrieval task for searching Chinese news documents with controversial topics. The queries must cover a stance on the topic. The datasets containing more than 800,000 news articles, 70 queries, and the ground truth will be released after the contest. More details can be found via https://ppt.cc/fkQfDx.

• The Sixth Asia Information Retrieval Societies Conference (**AIRS 2010**):



I serve as the Conference Chair

Keynote: Prof. Sung-Hyon Myaeng (KAIST)

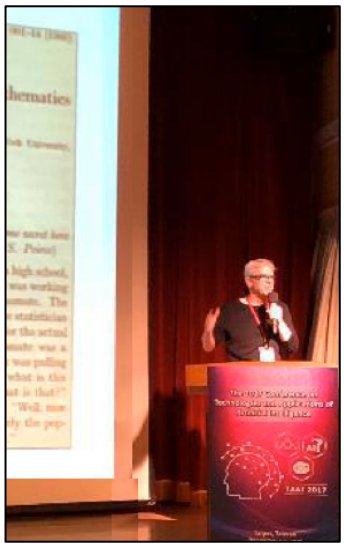


Keynote: Prof. ChengXiang Zhai (UIUC)

Together with Steering Committee

I served as the Conference Chair. We received 142 participants from 17 countries, including the United States, United Kingdom, Australia, Germany, France, Canada, Japan, Korea, United Arab Emirates, Singapore, India, Austria, etc. A total of 120 papers were submitted. Through double-blindre viewing process, 26 submissions (21%) were accepted as full oral papers and 31 (25%) as short posters.

• The 2017 Conference on Technologies and Applications of Artificial Intelligence (**TAAI 2017**):



Keynotes: (left to right)

Prof. Naftali (Tali) Tishby (HUJI)
Prof. Kevin Knight (USC)
Prof. Chih-Jen Lin (NTU)

I served as the Conference Chair. We received 455 participants from 10 countries, including the United States, Canada, France, Japan, Korea, Israel, etc.