ZHIQI HUANG

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RESEARCH INTEREST

Cross-lingual and multi-lingual search, information retrieval, data mining, and machine learning.

EDUCATION

University of Massachusetts, Amherst *Sep 2018 - Present*
Ph.D. in Computer Science
Advisor: James Allan

University of Maryland, College Park *May 2015*
M.A. in Statistics

Sun Yat-sen University *June 2013*
B.S. in Applied Mathematics

SELECTED PUBLICATIONS

[1] **Zhiqi Huang**, Hansi Zeng, Hamed Zamani, James Allan. *Soft Prompt Decoding for Multilingual Dense Retrieval.* **Accepted.** The 46th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR), 2023.

[2] **Zhiqi Huang**, Puxuan Yu, James Allan. *Improving Cross-lingual Information Retrieval on Low-Resource Languages via Optimal Transport Distillation.* The 16th ACM International Conference on Web Search and Data Mining (WSDM), 2023.

[3] **Zhiqi Huang**, Hamed Bonab, Sheikh Muhammad Sarwar, Razieh Rahimi, James Allan. *Mixed Attention Transformer for Leveraging Word-Level Knowledge to Neural Cross-Lingual Information Retrieval.* The 30th ACM International Conference on Information and Knowledge Management (CIKM), 2021.

[4] **Zhiqi Huang**, Razieh Rahimi, Puxuan Yu, Jingbo Shang, James Allan. *AutoName: A Corpus-Based Set Naming Framework.* The 44th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR), 2021.

[5] Puxuan Yu, Razieh Rahimi, **Zhiqi Huang**, James Allan. *Learning to Rank Entities for Set Expansion from Unstructured Data.* The 43rd International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR), 2020.

[6] Puxuan Yu, **Zhiqi Huang**, Razieh Rahimi, James Allan. *Corpus-based Set Expansion with Lexico-syntactic Features and Distributed Representations.* The 42nd International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR), 2019.

[7] **Zhiqi Huang**, Ryan McKenna, Gerome Miklau, Michael Hay, Ashwin Machanavajjhala. *PSynDB: Accurate and Accessible Private Data Generation.* The 45th International Conference on Very Large Data Bases (VLDB), 2019.

[8] **Zhiqi Huang**, Xizhao Wang, *Sensitivity of Data Matrix Rank in Non-iterative Training*, Neurocomputing Volume 313 (2018): p386-391.

[9] Ran Wang, Sam Kwong, Yuheng Jia, **Zhiqi Huang** and Lang Wu. *Mutual Information Based K-Labelsets Ensemble for Multi-Label Classification.* IEEE International Conference on Fuzzy Systems (FUZZ-IEEE), 2018.

RESEARCH PROJECTS

During my Ph.D., I participated in two projects funded by Intelligence Advanced Research Projects Activity (IARPA). My contribution is mainly to design models for specific retrieval tasks.

- Machine Translation for English Retrieval of Information in Any Language (MATERIAL). https://www.iarpa.gov/research-programs/material

- Better Extraction from Text Towards Enhanced Retrieval (BETTER). https://www.iarpa.gov/research-programs/better

WORK EXPERIENCE

National Engineering Laboratory, Shenzhen University　　　　June 2017 - July 2018
Research Fellow　　　　*Shenzhen, China*

Work on uncertainty modeling and method for inductive learning.

Quad2Media　　　　July 2015 - March 2017
Data Scientist　　　　*Boston, U.S.*

Design and manage a large scale user profile system for marketing campaign.

TEACHING

Teaching Assistant: COMPSCI 240 Reasoning Under Uncertainty, Spring 2020, UMass Amherst.

Teaching Assistant: COMPSCI 689 Machine Learning, Fall 2019, UMass Amherst.

Teaching Assistant: COMPSCI 356 Digital Forensics, Spring 2019, UMass Amherst.

PROFESSIONAL SERVICES

PC Member and Reviewer

SIGIR: 2022, 2023.
CIKM: 2021, 2022.
WWW: 2023.

AWARDS

Thesis Proposal Fellowship, Spring 2023, UMass CICS.

Winner of WSDM Cup 2023, 2nd on MIRACL (Multilingual Information Retrieval Across a Continuum of Languages) Leaderboard, 2023, Singapore.