

Dawei Yin

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RESEARCH INTERESTS	Data Mining, Applied Machine learning, Recommender Systems, Online Advertising	
EDUCATION	Lehigh University , Bethlehem, PA, USA	
	Doctor of Philosophy in Computer Science	Sep. 2013
	<ul style="list-style-type: none">• Topic: Prediction and recommendation in online media.• Advisor: Prof. Brian D. Davison• Rossin Doctoral Fellow	
	Master of Science in Computer Science	Sep. 2010
	<ul style="list-style-type: none">• GPA: 3.95/4.0• Advisor: Prof. Brian D. Davison and Prof. Henry S. Baird	
	The University of Hong Kong , Hong Kong, China	
	M.Phil. student in Computer Science	Jun. 2007 - Jun. 2008
	<ul style="list-style-type: none">• GPA: 4.0/4.0 (Transfer to Lehigh University)	
	Shandong University , Jinan, Shandong, China	
	Bachelor of Engineering, Computer Science	Jun. 2006
	<ul style="list-style-type: none">• GPA: 89.41/100, Major GPA: 92.0/100, Rank: 1st/53• Outstanding Graduate	
WORK EXPERIENCE	Baidu Inc., Beijing, China	
	<i>Senior Director, Head of Search Science</i>	Oct. 2019 - present
	<ul style="list-style-type: none">• Managing the search science team (about 500 scientists) at Baidu.• Leading Baidu's science efforts of web search, question answering, video search, image search, news search, etc..• Technique scope includes large language model, query understanding, learning to rank, search relevance, authority, freshness, etc..	
	JD.com, Beijing, China	
	<i>Senior Director, Head of Recommendation Platform</i>	Jun. 2016 - Oct. 2019
	<ul style="list-style-type: none">• Managing the recommendation engineering/science team (about 200 scientists/engineers), building recommender systems of JD.com.• Founded Data Science Lab (http://datascience.jd.com), leading the science efforts of recommendation, search, metrics and knowledge graph, etc..• WSDM 2018 Best Student Paper Award for the paper entitled "A Path-constrained Framework for Discriminating Substitutable and Complementary Products in E-commerce".• ICHI 2019 Best Paper Honorable Mention for the paper entitled "Weight Loss Prediction in Social-Temporal Context".• KDD CUP 2019 Runner-up Award (Rank 2nd/243) in "Research for Humanity" Reinforcement Learning Track.• Promoted from Engineering Director to Senior Engineering Director in Dec. 2017.	

Yahoo Labs, Sunnyvale, CA, USA

Senior Manager of Research

Aug. 2013 - Jun. 2016

- Managed the relevance science team, which includes about 10 top talented scientists.
- Led the science efforts on Yahoo search core relevance, including ranking function, click modeling, active learning, deep learning, query rewriting, real time features etc..
- **WSDM 2016 Best Paper Award** for the paper entitled “Beyond Ranking: Optimizing Whole-Page Presentation”.
- **KDD 2016 Best Paper Award** for the paper entitled “Ranking Relevance in Yahoo Search”.
- Promoted from Research Scientist to Senior Research Scientist in Aug. 2015, and to Senior Research Manager in Dec. 2015.

Shenzhen Institutes of Advanced Technology, Shenzhen, China

Adjunct Professor

Sep. 2019 - May. 2021

- Research on data mining, machine learning, etc..

Machine Learning Group, Microsoft Research Asia, Beijing, China

Research Intern

Feb. 2012 - Aug. 2012

- Performed research focused on Online Advertising, Sponsored Search.
- Analyzed several factors influencing the CTR from the perspective of context, including the number of displayed ads, the content of the ads, the relationship between the query and ads, and the mutual influences between ads. Based on this data analysis, we designed a novel Context-Aware Click Model for sponsored search.

Machine Learning Group, XEROX Research Center Europe, Grenoble, France

Research Intern

May. 2011 - Sep. 2011

- Worked on Bayesian Recommender System, Bayesian multi-relational analysis.

Web Understanding, Modeling, and Evaluation Lab, Lehigh University

Research Assistant

Jan. 2009 - May 2013

- Performed research under Prof. Davison’s supervision, mainly focusing on web mining, machine learning and social computing.

BOOK
CHAPTERS

Hui Liu, Dawei Yin, Jiliang Tang. **Query Rewriting**. Book chapter in *Query Understanding for Search Engines*, 2020.

TUTORIALS

Chao Huang, Lianghao Xia, Xiang Wang, Xiangnan He and Dawei Yin. **Self-Supervised Learning for Recommendation**. In *Proceedings of the 30th ACM Conference on Information and Knowledge Management (CIKM 2022)*, Oct. 2022.

Chao Huang, Xiang Wang, Xiangnan He and Dawei Yin. **Self-Supervised Learning for Recommendation**. In *Proceedings of the 45th Annual ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2022)*, Online, July, 2022.

Wenqi Fan, Xiangyu Zhao, Dawei Yin and Jiliang Tang. **Tutorial on Deep Learning for Recommendations: Fundamentals and Advances**. In *Proceedings of the 30th International Joint Conference on Artificial Intelligence (IJCAI 2021)*, online.

Xiangyu Zhao, Wenqi Fan, Jiliang Tang and Dawei Yin. **Tutorial on Deep Recommender System: Fundamentals and Advances**. In *Proceedings of the Web Conference (WWW 2021)*, Slovenia, 2021.

Zhaochun Ren, Xiangnan He, Dawei Yin and Maarten de Rijke. **Information Discovery in E-commerce**. In *Proceedings of the 41st Annual ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2018)*, Ann Arbor, Michigan, USA, 2018.

- JOURNAL PUBLICATIONS
- Yuchen Li, Haoyi Xiong, Qingzhong Wang, Linghe Kong, Hao Liu, Haifang Li, Jiang Bian, Shuaiqiang Wang, Guihai Chen, Dawei Yin, Dejing Dou. **COLTR: Semi-supervised Learning to Rank with Co-training and Over-parameterization for Web Search.**In *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 2023.
- Lixin Zou, Weixue Lu, Yiding Liu, Hengyi Cai, Xiaokai Chu, Dehong Ma, Dating Shi, Zhicong Cheng, Simiu Gu, Shuaiqiang Wang, Dawei Yin. **Pre-trained Language Model based Retrieval and Ranking for Web Search.** In *ACM Transactions on the Web*, 2022.
- Xu Chen, Kun Xiong, Yongfeng Zhang, Long Xia, Dawei Yin, Jimmy Huang. **Neural Feature- Publications aware Recommendation with Signed Hypergraph Convolutional Network.**In *ACM Transactions on Information System (TOIS)*, 2020.
- Wenqi Fan, Yao Ma, Qing Li, Jianping Wang, Guoyong Cai, Jiliang Tang, Dawei Yin. **A Graph Neural Network Framework for Social Recommendations.**In *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 2020.
- Xiangyu Zhao, Long Xia, Jiliang Tang and Dawei Yin, **Deep Reinforcement Learning for Search, Recommendation, and Online Advertising: A Survey.** In *ACM SIGWEB Newsletter (SIGWEB)*, 2019, Issue Spring: Article No.4.
- Yue Wang, Dawei Yin, Luo Jie, Pengyuan Wang, Makoto Yamada, Yi Chang, and Qiaozhu Mei. **Optimizing Whole-Page Presentation for Web Search.** In *ACM Transactions on the Web (TWEB)*, 2018
- M. Yamada, J. Tang, J. Lugo-Martinez, E. Hodzic, R. Shrestha, A. Saha, H. Ouyang, D. Yin, H. Mamitsuka, C. Sahinalp, P. Radivojac, F. Menczer, Y. Chang. **Ultra High-Dimensional Nonlinear Feature Selection for Big Biological Data.** In *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 2018.
- Hongshen Chen, Xiaorui Liu, Dawei Yin, Jiliang Tang. **A Survey on Dialogue Systems: Recent Advances and New Frontiers.** In *SIGKDD Explorations*, 2018
- Yuening Hu, Changsung Kang, Jiliang Tang, Dawei Yin, and Yi Chang. **Large-scale Location Prediction for Web Pages.** In *IEEE Trans on Knowledge and Data Engineering (TKDE)*, 2017
- Changsung Kang, Dawei Yin, Ruiqiang Zhang, Nicolas Torzec, Jianzhang He, Yi Chang. **Learning to rank related entities in web search.** In *Neurocomputing*, 2015.
- Zaihan Yang, Liangjie Hong, Dawei Yin, and Brian D. Davison. **Ranking Authors with Learning-to-Rank Topic Modeling.** In *International Journal of Innovative Computing, Information and Control*, 2015.
- Xin Han, He Guo, Dawei Yin and Yong Zhang. **A note on on-line broadcast scheduling with deadlines.** *Information Processing Letters*, Volume 109 Issue 3, January 2009
- CONFERENCE PUBLICATIONS
- Rong Huang, Danfeng Zhang, Weixue Lu, Han Li, Meng Wang, Daiting Shi, Jun Fan, Zhicong Cheng, Simiu Gu, Dawei Yin. **Learning Discrete Document Representations in Web Search.** In *Proceedings of the 29th annual ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD 2023)*, Long Beach, CA, USA, Aug. 2023.
- Yubao Tang, Ruqing Zhang, Jiafeng Guo, Jiangui Chen, Zuowei Zhu, Shuaiqiang Wang, Dawei Yin, Xueqi Cheng. **Semantic-Enhanced Differentiable Search Index Inspired by Learning Strategies.** In *Proceedings of the 29th annual ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD 2023)*, Long Beach, CA, USA, Aug. 2023.
- Yuchen Li, Haoyi Xiong, Linghe Kong, Qingzhong Wang, Shuaiqiang Wang, Guihai Chen, Dawei Yin. **S2sphere: Semi-Supervised Pre-training for Web Search over Heterogeneous Learning to**

Rank Data. In *Proceedings of the 29th annual ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD 2023)*, Long Beach, CA, USA, Aug. 2023.

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Juanhui Li, Harry Shomer, Jiayuan Ding, Yiqi Wang, Yao Ma, Neil Shah, Jiliang Tang, Dawei Yin **Are Message Passing Neural Networks Really Helpful for Knowledge Graph Completion?.** In *Proceedings of the 61st Annual Meeting of the Association for Computational Linguistics (ACL 2023)*, Toronto, Canada, 2023.

Juanhui Li, Wei Zeng, Suqi Cheng, Yao Ma, Jiliang Tang, Shuaiqiang Wang and Dawei Yin, **Graph Enhanced BERT for Query Understanding,** In *Proceedings of the 46th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2023)*. Taipei, Taiwan, China, Jul. 2023.

Xubin Ren, Chao Huang, Lianghao Xia, Jiashu Zhao and Dawei Yin. **Disentangled Contrastive Collaborative Filtering.** In *Proceedings of the 46th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2023)*, Taipei, Taiwan, China, Jul. 2023.

Kesen Zhao, Lixin Zou, Xiangyu Zhao, Maolin Wang, Dawei Yin, **User Retention-oriented Recommendation with Decision Transformer.** In *Proceedings of the Web Conference (WWW 2023)*, Austin, Texas, USA, Apr. 2023.

Youngang Lyu, Piji Li, Yechang Yang, Maarten de Rijke, Pengjie Ren, Yukun Zhao, Dawei Yin, Zhaochun Ren. **Feature-Level Debiased Natural Language Understanding.** In *Proceedings of the 37th AAAI Conference on Artificial Intelligence (AAAI 2023)*, United States of America, Feb. 2023.

Dan Luo, Lixin Zou, Qingyao Ai, Zhiyu Chen, Dawei Yin, Brian D Davison. **Model-based Unbiased Learning to Rank.** In *Proceedings of the 14th ACM Conference on Web Search and Data Mining (WSDM 2023)*, Singapore, Feb. 2023.

Lianshang Cai, Linhao Zhang, Dehong Ma, Jun Fan, Daiting Shi, Yi Wu, Zhicong Cheng, Simiu Gu and Dawei Yin. **PILE: Pairwise Iterative Logits Ensemble for Multi-Teacher Labeled Distillation.** In *Proceedings of the 2022 Conference on Empirical Methods in Natural Language Processing (EMNLP 2022)*, Abu Dhabi, United Arab Emirates, Dec. 2022.

Lixin Zou, Haitao Mao, Xiaokai Chu, Jiliang Tang, Wenwen Ye, Shuaiqiang Wang, Dawei Yin. **A Large Scale Search Dataset for Unbiased Learning to Rank.** In *Proceedings of Thirty-sixth Conference on Neural Information Processing Systems (NeurIPS 2022)*, Nov. 2022.

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Boming Zhao, Bangbang Yang, Zhenyang Li, Zuoyue Li, Guofeng Zhang, Jiashu Zhao, Dawei Yin, Zhaopeng Cui, Hujun Bao. **Factorized and Controllable Neural Re-Rendering of Outdoor Scene for Photo Extrapolation.** In *Proceedings of the 30th ACM International Conference on Multimedia (ACMMM 2022)*, Lisbon, Portugal, Oct. 2022.

Qian Dong, Yiding Liu, Suqi Cheng, Shuaiqiang Wang, Zhicong Cheng, Shuzi Niu and Dawei Yin. **Incorporating Explicit Knowledge in Pre-trained Language Models for Passage Re-ranking.** In *Proceedings of the 45th Annual ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2022)*, Online, July, 2022.

Xiaokai Chu, Jiashu Zhao, Lixin Zou, Dawei Yin. **A Hierarchical Multi-Granularity Pre-Trained Language Model for Web Search.** In *Proceedings of the 45th Annual ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2022)*, Online, July, 2022.

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Lan Jiang, Tianshu Lyu, Yankai Lin, Meng Chong, Xiaoyong Lyu, Dawei Yin. **On Length Divergence Bias in Textual Matching Models.** In *Proceedings of the 60th Annual Meeting of the Association for Computational Linguistics (ACL 2022)*, Online, May 2022

Xiaokai Chu, Jiashu Zhao, Xinxin Fan, Di Yao, Zhihua Zhu, Dawei Yin, Lixin Zou, Jingping Bi. **Contrastive Disentangled Graph Convolutional Network for Weakly-supervised Node Classification.** IN *Proceeding of the 27th International Conference on Database Systems for Advanced Applications (DASFAA2022)*, Hyderabad, India, Apr. 2022.

Liang Wen, Houfeng Wang, Dehong Ma, Jun Fan, Yingwei Luo, Xiaolin Wang, Daiting Shi, Zhicong Cheng, Dawei Yin. **A question-oriented propagation network for news reading comprehension.** In *Procedding of 2022 IEEE International Conference on Acoustics, Speech, & Signal Processing (ICASSP2022)*, Singapore, May 2022.

Wenwen Ye, Yiding Liu, Lixin Zou, Hengyi Cai, Suqi Cheng, Shuaiqiang Wang and Dawei Yin. **Fast Semantic Matching via Flexible Contextualized Interaction.** In *Proceedings of the 14th ACM Conference on Web Search and Data Mining (WSDM 2022)*, Phoenix, AZ, USA, Feb. 2022.

Li Zhang, Lei Shi, Jiashu Zhao, Juan Yang, Tianshu Lyv, Dawei Yin and Haiping Lu. **A GNN-based Multi-task Learning Framework for Personalized Video Search.** In *Proceedings of the 14th ACM Conference on Web Search and Data Mining (WSDM 2022)*, Phoenix, AZ, USA, Feb. 2022.

Wei Wei, Chao Huang, Lianghao Xia, Yong Xu, Jiashu Zhao and Dawei Yin. **Contrastive Meta Learning with Behavior Multiplicity for Recommendation.** In *Proceedings of the 14th ACM Conference on Web Search and Data Mining (WSDM 2022)*, Phoenix, AZ, USA, Feb. 2022.

Chao Huang, Jiashu Zhao, Dawei Yin. **Purchase Intent Forecasting with Convolutional Hierarchical Transformer Networks.** In *Proceedings of 37th IEEE International Conference on Data Engineering (ICDE 2021)*, Chania, Greece, Apr. 2021.

Zhiyu Chen, Mohamed Trabelsi, Jeff Heflin, Dawei Yin and Brian Davison. **MGNETS: Multi-Graph Neural Networks for Table Search.** In *Proceedings of the 29th ACM Conference on Information and Knowledge Management (CIKM 2021)*, Online, Oct. 2021.

Lixin Zou, Shengqiang Zhang, Hengyi Cai, Dehong Ma, Suqi Cheng, Daiting Shi, Shuaiqiang Wang, Zhicong Cheng, Dawei Yin. **Pre-trained Language Model based Ranking in Baidu Search.** In *Proceedings of the 27th annual ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD 2021)*, Singapore, Aug. 2021.

Yiding Liu, Weixue Lu, Suqi Cheng, Daiting Shi, Shuaiqiang Wang, Zhicong Cheng, Dawei Yin. **Pre-trained Language Model for Web-scale Retrieval in Baidu Search.** In *Proceedings of the 27th annual ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD 2021)*, Singapore, Aug. 2021.

Siyuan Guo, Lixin Zou, Yiding Liu, Wenwen Ye, Suqi Cheng, Shuaiqiang Wang, Hechang Chen, Dawei Yin and Yi Chang. **Enhanced Doubly Robust Learning for Debiasing Post-Click Conversion Rate Estimation.** In *Proceedings of the 44th Annual ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2021)*, Online, Jul. 2021.

Gang Wang, Ziyi Guo, Xiang Li, Dawei Yin, and Shuai Ma. **SceneRec: Scene-Based Graph Neural Networks for Recommender Systems**. In *The 24th International Conference on Extending Database Technology (EDBT)*, Nicosia, Cyprus, Mar. 2021.

Xiangyu Zhao, Long Xia, Lixin Zou, Hui Liu, Dawei Yin and Jiliang Tang. **User Simulation via Supervised Generative Adversarial Network**. In *Proceedings of the Web Conference (WWW 2021)*, Slovenia, Apri. 2021.

Xinwei Wu, Hechang Chen, Jiashu Zhao, Li He, Dawei Yin and Yi Chang. **Unbiased Learning to Rank in Feeds Recommendation**. In *Proceedings of the 13th ACM Conference on Web Search and Data Mining (WSDM 2021)*, Jerusalem, Israel, Feb. 2021.

Huance Xu, Chao Huang, Yong Xu, Lianghao Xia, Hao Xing, and Dawei Yin. **Global Context Enhanced Social Recommendation with Hierarchical Graph Neural Networks**, In *Proceedings of the 20th IEEE International Conference on Data Mining (ICDM 2020)*, Sorrento, Italy, Nov. 2020.

Yulong Gu, Zhuoye Ding, Shuaiqiang Wang, Lixin Zou, Yiding Liu and Dawei Yin. **Deep Multifaceted Transformers for Multi-objective Ranking in Large-Scale E-commerce Recommender Systems**. In *Proceedings of the 29th ACM Conference on Information and Knowledge Management (CIKM 2020)*, Galway, Ireland, Oct. 2020.

Xiangyu Zhao, Long Xia, Lixin Zou, Dawei Yin, Hui Liu, Jiliang Tang. **Whole-Chain Recommendations**. In *Proceedings of the 29th ACM Conference on Information and Knowledge Management (CIKM 2020)*, Galway, Ireland, Oct. 2020.

Xiang Li, Ben Kao, Caihua Shan, Dawei Yin and Martin Ester. **CAST: A Correlation-based Adaptive Spectral Clustering Algorithm on Multi-scale Data**. In *Proceedings of the 26th annual ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD 2020)*, San Diego, California, USA, Aug. 2020.

Jun Xu, Zeng Wei, Long Xia, Yanyan Lan, Dawei Yin, Xueqi Cheng and Ji-Rong Wen. **Reinforcement Learning to Rank with Pairwise Policy Gradient**. In *Proceedings of the 43rd Annual ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2020)*, Xi'an, China, Jul. 2020.

Wenwen Ye, Shuaiqiang Wang, Xu Chen, Xuepeng Wang, Zheng Qin and Dawei Yin. **Time Matters: Sequential Recommendation with Complex Temporal Information**. In *Proceedings of the 43rd Annual ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2020)*, Xi'an, China, Jul. 2020.

Yao Ma, Ziyi Guo, Zhaochun Ren, Jiliang Tang and Dawei Yin. **Learning Dynamic Node Representations with Graph Neural Networks**. In *Proceedings of the 43rd Annual ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2020)*, Xi'an, China, Jul. 2020.

Lixin Zou, Long Xia, Yulong Gu, Weidong Liu, Dawei Yin, Jimmy Huang and Xiangyu Zhao. **Neural Interactive Collaborative Filtering**. In *Proceedings of the 43rd Annual ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2020)*, Xi'an, China, Jul. 2020.

Haolan Zhan, Hainan Zhang, Hongshen Chen, Lei Shen, Yanyan Lan, Zhuoye Ding and Dawei Yin. **User-Inspired Posterior Network for Recommendation Reason Generation**. In *Proceedings of the 43rd Annual ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2020)*, Xi'an, China, Jul. 2020.

Hainan Zhang, Yanyan Lan, Liang Pang, Hongshen Chen, Zhuoye Ding, Dawei Yin. **STAR-BTM: Enhance the Short-text Topic Attention Relevance with Biterm Topic Model for Multi-turn Dialogue Generation**. In *Proceedings of the 29th International Joint Conference on Artificial Intelligence (IJCAI 2020)*, Yokohama, Japan.

Hengyi Cai, Hongshen Chen, Yonghao Song, Xiaofang Zhao, Dawei Yin. **Exemplar Guided Neural Dialogue Generation.** In *Proceedings of the 29th International Joint Conference on Artificial Intelligence (IJCAI 2020)*, Yokohama, Japan, Jan. 2020.

Hengyi Cai, Hongshen Chen, Yonghao Song, Cheng Zhang, Xiaofang Zhao and Dawei Yin. **Data Manipulation: Towards Effective Instance Learning for Neural Dialogue Generation via Augmentation and Weighting.** In *Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics (ACL 2020)*, Seattle, USA, Jul. 2020.

Wenwen Ye, Zheng Qin, Zhuoye Ding, and Dawei Yin. **Game Recommendation based on Dynamic Graph Convolutional Network.** In *Proceedings of the 24th International Conference on Database Systems for Advanced Applications (DASFAA 2020)*, Jeju, South Korea, May 2020.

Yuanxing Liu, Zhaochun Ren, Wei-Nan Zhang, Wanxiang Che, Ting Liu and Dawei Yin. **Keywords Generation Improves E-Commerce Session-based Recommendation.** In *Proceedings of the Web Conference (WWW 2020)*, Taipei, Apr. 2020.

Hengyi Cai, Hongshen Chen, Cheng Zhang, Yonghao Song, Xiaofang Zhao, Yangxi Li, Dongsheng Duan, Dawei Yin. **Learning from Easy to Complex: Adaptive Multi-Curricula Learning for Neural Dialogue Generation.** In *Proceedings of the 34th AAAI Conference on Artificial Intelligence (AAAI 2020)*, New York, USA, Feb. 2020.

Shaoxiong Feng, Hongshen Chen, Kan Li, Dawei Yin. **Posterior-GAN: Towards Informative and Coherent Response Generation with Posterior Generative Adversarial Network.** In *Proceedings of the 34th AAAI Conference on Artificial Intelligence (AAAI 2020)*, New York, USA, Feb. 2020.

Lixin Zou, Long Xia, Zhuo Zhang, Pan Du, Ting Bai, Weidong Liu, Jian-Yun Nie and Dawei Yin. **Pseudo Dyna-Q: A Reinforcement Learning Framework for Interactive Recommendation.** In *Proceedings of the 13th ACM Conference on Web Search and Data Mining (WSDM 2020)*, Houston, Texas, USA, Feb. 2020.

Yulong Gu, Zhuoye Ding, Shuaiqiang Wang and Dawei Yin. **Hierarchical User Profiling for E-commerce Recommender Systems.** In *Proceedings of the 13th ACM Conference on Web Search and Data Mining (WSDM 2020)*, Houston, Texas, USA, Feb. 2020.

Junjie Li, Xuepeng Wang, Dawei Yin and Chengqing Zong. **Attribute-aware Sequence Network for Review Summarization.** In *Proceedings of the 2019 Conference on Empirical Methods in Natural Language Processing (EMNLP 2019)*, Hong Kong, China, Nov. 2019.

Hengyi Cai, Hongshen Chen, Cheng Zhang, Yonghao Song, Xiaofang Zhao and Dawei Yin. **Adaptive Parameterization for Neural Dialogue Generation.** In *Proceedings of the 2019 Conference on Empirical Methods in Natural Language Processing (EMNLP 2019)*, Hong Kong, China, Nov. 2019.

Jiashu Zhao, Hongshen Chen and Dawei Yin. **A Dynamic Product-aware Learning Model for E-commerce Query Intent Understanding.** In *Proceedings of the 28th ACM Conference on Information and Knowledge Management (CIKM 2019)*, Beijing, China, Nov. 2019.

Hongshen Chen, Jiashu Zhao and Dawei Yin. **Fine-Grained Product Categorization in E-commerce.** In *Proceedings of the 28th ACM Conference on Information and Knowledge Management (CIKM 2019)*, Beijing, China, Nov. 2019.

Wenqi Fan, Yao Ma, Dawei Yin, Jianping Wang, Jiliang Tang, Qing Li. **Deep Social Collaborative Filtering.** In *Proceedings of the 13th ACM Conference on Recommender Systems (RecSys 2019)*, Copenhagen, Denmark, Sep. 2019.

Xiangyu Zhao, Liang Zhang, Long Xia, Zhuoye Ding, Dawei Yin, Jiliang Tang. **Deep Reinforcement Learning for List-wise Recommendations.** In *Proceedings of the 1st Workshop on Deep Reinforce-*

ment Learning for Knowledge Discovery(DRL4KDD'2019) at KDD 2019, Anchorage, AK, USA, August 5, 2019.

Zhiwei Wang, Xiaorui Liu, Jiliang Tang and Dawei Yin. **Weight Loss Prediction in Social-Temporal Context**. In *Proceedings of the Seventh IEEE International Conference on Healthcare Informatics (ICHI 2019)*. [Best Paper Honorable Mention]

Weijian Chen, Yulong Gu, Zhaochun Ren, Xiangnan He, Hongtao Xie, Tong Guo, Dawei Yin, Yongdong Zhang. **Semi-supervised User Profiling with Heterogeneous Graph Attention Networks**. In *Proceedings of the 28th International Joint Conference on Artificial Intelligence (IJCAI 2019)*, Macao, China.

Lixin Zou, Long Xia, Zhuoye Ding, Song Jiaxing, Weidong Liu and Dawei Yin. **Reinforcement Learning to Optimize Long-term User Engagement in Recommender Systems**. In *Proceedings of the 25th annual ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD 2019)*, Anchorage, Alaska, USA, Aug. 2019.

Li He, Long Xia, Wei Zeng, Zhi-Ming Ma, Yihong Zhao and Dawei Yin. **Off-policy Learning for Multiple Loggers**. In *Proceedings of the 25th annual ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD 2019)*, Anchorage, Alaska, USA, Aug. 2019.

Chao Huang, Xian Wu, Xuchao Zhang, Chuxu Zhang, Jiashu Zhao, Dawei Yin and Nitesh Chawla. **Online Purchase Prediction via Multi-Scale Modeling of Behavior Dynamics**. In *Proceedings of the 25th annual ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD 2019)*, Anchorage, Alaska, USA, Aug. 2019.

Chao Huang, Chuxu Zhang, Jiashu Zhao, Xian Wu, Nitesh Chawla and Dawei Yin. **MiST: A Multi-view and Multimodal Spatial-Temporal Learning Framework for Citywide Abnormal Event Forecasting**. In *Proceedings of the 28th International World Wide Web Conference (WWW 2019)*, San Francisco, CA, USA, 2019.

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Shen Gao, Zhaochun Ren, Yihong Zhao, Dongyan Zhao, Dawei Yin and Rui Yan. **Product-Aware Answer Generation in E-Commerce Question-Answering**. In *Proceedings of the 12th ACM Conference on Web Search and Data Mining (WSDM 2019)*, Melbourne, Australia, Feb. 2019.

Xisen Jin, Wenqiang Lei, Hongshen Chen, Shangsong Liang, Zhaochun Ren, Yihong Zhao and Dawei Yin. **Explicit State Tracking with Semi-Supervision for Neural Dialogue Generation**. In *Proceedings of the 27th ACM Conference on Information and Knowledge Management (CIKM 2018)*, Lingotto, Turin, Italy, Oct. 2018.

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Zhiwei Wang, Tyler Derr, Dawei Yin and Jiliang Tang. **Understanding and Predicting Weight Loss with Mobile Social Networking Data**. In *Proceedings of the 26th ACM International Conference on Information and Knowledge Management (CIKM2017)*, Singapore, Nov. 2017.

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Pengyuan Wang, Wei Sun and Dawei Yin. **What Size Should A Mobile Ad Be?**. In *the 1st Workshop on Offline and Online Evaluation of Web-based Services at WWW 2015*. Florence, Italy, May 2015.

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OTHER PUBLICATIONS	Dawei Yin, Changsung Kang, Chikashi Nobata, Hongbo Deng, Hua Ouyang, Jianhui Chen, Jiliang Tang, Mianwei Zhou, Tim Daly, Yuening Hu, Jean-Marc Langlois, Yi Chang. Ranking in Yahoo Search Technology , <i>Yahoo Tech Pulse (internal publication)</i> , 2015.
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	Xiaoguang Qi, Dawei Yin, Zhenzhen Xue and Brian D. Davison. Enhancing Taxonomies by Providing Many Paths . <i>Technical Report LU-CSE-10-005</i> , Dept. of Computer Science and Engineering, Lehigh, 2010.
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	US Patent Automatic Social Media Content Timeline Summarization Method and Apparatus , US Patent 10,430,718.
	US Patent Method and System for Rewriting a Query . US Patent App. 15/130,217.
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	US Patent Method and system for ranking search content . US Patent App. 14/959,122.
	US Patent Systems and methods for measuring complex online strategy effectiveness . US Patent App. 14/587,328
KEYNOTE & INVITED TALKS	US Patent Probabilistic Relational Data Analysis . US Patent App. 13/690,071.
	US Patent Convex Collective Matrix Factorization . US Patent 9,058,303.
	Pretrained Language Models in Web Search Keynote at the 28th China Conference on Information Retrieval (CCIR 2022), Sep. 2022.
	Pretrained Language Models in Baidu Search at Institute Of Computing Technology, Chinese Academy Of Science, Apr. 2022.
	Pretrained Language Models in Baidu Search at Renmin University, Mar. 2022.
	Pretrained Language Models in Baidu Search at Tsinghua University, Oct. 2021.
	Recommender Systems in E-commerce at Beihang University, Jul. 2019.
	Recommender Systems in E-commerce at <i>The 4th Asian Summer School in Information Access (ASSIA 2019)</i> , Haikou, China, Jul. 2019.

Deep Reinforcement Learning for E-commerce Recommendations at *Symposium on Machine Learning and Optimization*, Beijing, China, Oct. 2018.

Ranking Relevance in Web Search at *China Big Data Technology Conference*, Beijing, China, Dec. 2016.

Ranking and Beyond-ranking in Web Search at *Qihoo 360 Technology Co Ltd.*, Beijing, China, Sep. 2016.

Ranking and Beyond-ranking in Web Search at *Institute of Information Engineering, Chinese Academy of Science*, Beijing, China, Sep. 2016.

Ranking and Beyond-Ranking in Web Search, at *Facebook*, Menlo Park, CA, Aug. 2016.

Prediction and Recommendation in Online Media at *Shenzhen Institutes of Advanced Technology, Chinese Academy of Science*, Shenzhen, China, July 2013.

Prediction and Recommendation in Online Media at *Yahoo! Labs*, Sunnyvale, CA, May 2013.

Prediction and Optimization in Online Advertising at *Thomson Reuters*, New York, NY, April 2013.

Prediction and Optimization in Online Advertising at *Samsung Research America*, San Jose, CA, April 2013.

Temporal Dynamics of User Interests in Tagging Systems at *XEROX Research Center Europe*, Grenoble, France, June 2011.

HONORS AND
AWARDS

Outstanding SPC, ACM WSDM, February 2022
KDD CUP 2019 Runner-up Award (Rank 2nd/243), ACM SIGKDD, August 2019.
Best Paper Honorable Mention, IEEE ICHI, June 2019
Best Student Paper Award, ACM WSDM, February 2018
Best Paper Award, ACM SIGKDD, August 2016
Yahoo Excellence Award for the highest level performer, Yahoo Inc, March 2016.
Best Paper Award, ACM WSDM, February 2016
Yahoo Patent Milestone Award, Yahoo Inc, 2016
Yahoo Invention Award, Yahoo Inc., January 2015.
LEAP Award (Labs Excellence Award Program), Yahoo Labs, September 2014.
WSDM Student Travel Grant, ACM WSDM, February 2013.
Rossin Doctoral Fellow, Lehigh University, 2012
Donald B. Crouch Travel Grant, ACM SIGIR, 2011.
SIGIR Student Travel Grant, ACM SIGIR, 2011.
Gotshal Fellowship, Lehigh University, 2008.
Graduate Studentship, the University of Hong Kong, 2007.
Honorable Mention Award of Mathematical Contest in Modeling, COMAP, 2006.
Outstanding Undergraduate Award (3%), Shandong University, June 2006.
China Mobile Scholarship, China Mobile, December 2005.
Top-class Scholarship (5%), Shandong University, 2004, 2005.
Excellent Students Award (5%), Shandong University, 2004, 2005.
Excellent Student Leader Award, Shandong University, 2003, 2004, 2005.

MENTORSHIP

Baidu Search Science:
Xiangyu Zhao (Michigan State University)
Zhiyu Chen (Lehigh University)
Dan Luo (Lehigh University)
JD Data Science Lab:
Ziyi Guo (Lehigh University)
Meizi Zhou (The University of Minnesota, Twin Cities)

Yahoo Labs:

Shiyu Chang (The University of Illinois at Urbana-Champaign)

Yue Wang (The University of Michigan)

Wei Sun (Purdue University)

Suriya Gunasekar (The University of Texas, Austin)

**OTHER
EXPERIENCES**

Pattern Recognition Research Lab, Lehigh University

*Research Assistant***Jan. 2009 - Jan. 2011**

- Research under Prof. Baird's supervision on DARPA project - Document analysis and exploitation project (<http://dae.cse.lehigh.edu>)
- Investigate algorithm enhancements for fast approximate nearest-neighbor classifiers.

Computer Science and Engineering Department, Lehigh University

*Teaching Assistant***Jan. 2013 - present**

- Undergraduate semester course "Computer Organization Architecture".
- Gave tutorials (once a week), and deployed experimental system for 81 students.

Computer Science Department, The University of Hong Kong

*Teaching Assistant***Sep. 2007 - Jan. 2008**

- Undergraduate semester course "Discrete Mathematics".
- Gave tutorials (once a week), designed and graded the homework and final exams for 80 students.

Chinese Scholar and Student Association, Lehigh University

*Vice President***Sep. 2008 - Jun. 2009**

- Organizes social activities for Chinese scholars and students in Lehigh University.

Material Science and Engineering Department, Shandong University

*Student Advisor***Sep. 2006 - Jun. 2007**

- Advising about 200 undergraduates and guiding their social and academic activities.

Computer Science Department, Shandong University

*Class President***Sep. 2002 - Jun. 2006**

- Continuously elected as class president from Sep. 2002 to Jun. 2006. Leading 52 classmates and organizing both social and academic activities.

SERVICE**Organizer:**

Workshop Chair at WSDM 2022

Sponsorship Chair at SIGIR 2020

Industry Track Chair at SIGIR 2018

Sponsorship Chair at WSDM 2018

Location and Trajectory Session Chair at SIGIR 2018

Co-Organizer of WSDM Cup 2023 Unbiased Learning & Pre-training for Web Search.

Co-Chair of DRL4IR: The 3rd Workshop on Deep Reinforcement Learning for Information Retrieval at SIGIR'22

Co-Chair of The 2nd Workshop on Deep Reinforcement Learning for Knowledge Discovery at WWW 2021

Co-Chair of DRL4IR: 2nd Workshop on Deep Reinforcement Learning for Information Retrieval at SIGIR 2021

Co-Chair of The SIGIR 2020 Workshop on Applied Interactive Information Systems at SIGIR 2020

Co-Chair of Deep Reinforcement Learning for Information Retrieval: Fundamentals and Advances at SIGIR 2020

Co-Chair of 1st International Workshop on Industrial Recommendation Systems (IRS) at KDD 2020

Co-Chair of the KDD 2019 workshop on Deep Reinforcement Learning for Knowledge Discovery at KDD 2019
Co-Chair of 2nd workshop on Deep Reinforcement Learning for Knowledge Discovery at WWW 2021
Co-Chair of the WSDM 2019 Workshop on Deep matching in Practical Applications at WSDM 2019
Co-Chair of the Second Vertical Search Relevance Workshop at WSDM 2015

Editorial Service:

Associate Editor, Foundations and Trends@ in Information Retrieval
Associate Editor, Recommender Systems, Frontiers in Big Data
Topic Editor, Industrial Recommender Systems, Frontiers in Big Data

Track Chair/Senior Program committee:

KDD 2020, 2022, 2023
IJCAI 2020, 2021
AAAI 2021
WWW 2020, 2021, 2022, 2023
SIGIR 2018, 2019, 2020, 2021, 2022, 2023
WSDM 2018, 2019, 2020, 2022
CIKM 2017 Best Paper Committee

Program committee:

EMNLP 2019
KDD 2019
SDM 2015, 2016
SIGIR 2014, 2015, 2016, 2017
WSDM 2014
AAAI 2014, 2016, 2017, 2018, 2019
IJCAI 2016
CIKM 2016, 2019
WWW 2017, 2018, 2019

Journal Reviewer:

IEEE Transactions on Knowledge and Data Engineering
ACM Transactions on Knowledge Discovery from Data
Data Mining and Knowledge Discovery
ACM Transactions on Intelligent Systems and Technology
Neurocomputing
Pattern Recognition Letters

MEMBERSHIP	ACM/SIG member IEEE member AAAI member
SKILLS	Proficient with: ANSI C, C++, Python, Matlab Familiar with: Perl, Java, Pig, Hadoop Solid math background Excellent teamwork Strong problem-solving abilities
REFERENCES	Available upon request