Xiusi Chen

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RESEARCH INTERESTS

Data Mining, Machine Learning, Natural Language Processing, Reinforcement Learning Applications

EDUCATION

University of California, Los Angeles — 2018 - present
Ph.D. candidate in Computer Science

- **Fields:** Data Mining (Graph Mining and Text Mining), Machine Learning (Reinforcement Learning Applications)
- **Thesis Committee:** Wei Wang (Chair), Yizhou Sun, Kai-Wei Chang, Jeffrey Brantingham.

Peking University — 2015 - 2018
M.S. in Computer Science

- **Fields:** Data Mining, Recommendation, Database
- **Thesis Committee:** Jun Gao (Chair), Bin Cui, Ming Zhang, and Shuai Ma.

Peking University — 2011 - 2015
B.S. in Computer Science

- **Thesis:** The Design and Implementation of Indexes on Distributed Big Graph Processing Framework
- **Advisor:** Prof. Jun Gao

PROFESSIONAL EXPERIENCES

Amazon Search (formerly Amazon A9) — 6/2022 - 9/2022
Applied Scientist Intern

NEC Laboratories America — 6/2019 - 9/2019
Research Intern

Alibaba DAMO Academy — 7/2016 - 12/2016
Research Intern

PUBLICATIONS

Xiusi Chen, Yu Zhang, Jinliang Deng, Jyun-Yu Jiang and Wei Wang, GOTTA: *Generative Few-shot Question Answering by Prompt-based Cloze Data Augmentation.* In Proceedings of the 2023 SIAM International Conference on Data Mining (**SDM**), 2023.

Xiusi Chen, Jyun-Yu Jiang and Wei Wang, *Scalable Graph Representation Learning via Locality-Sensitive Hashing.* In Proceedings of The 31st ACM International Conference on Information and Knowledge Management (**CIKM**), 2022.

Xiusi Chen, Jyun-Yu Jiang, Kun Jin, Yichao Zhou, Mingyan Liu, Jefferey Brantingham and Wei Wang, RELIABLE: *Offline Reinforcement Learning for Tactical Strategies in Professional Basketball Games.* In Proceedings of The 31st ACM International Conference on Information and Knowledge Management (**CIKM**), 2022.

Jinliang Deng, **Xiusi Chen**, Renhe Jiang, Xuan Song and Ivor W. Tsang, *A Multi-view Multi-task Learning Framework for Multi-variate Time Series Forecasting.* In IEEE Transactions on Knowledge and Data Engineering (**TDKE**), 2022.

Yu Zhang*, Shweta Garg*, Yu Meng, **Xiusi Chen** and Jiawei Han, *MotifClass: Weakly Supervised Text Classification with Higher-order Metadata Information.* In Proceedings of the Fifteenth ACM International Conference on Web Search and Data Mining (**WSDM**), 2022.

Yichao Zhou, Jyun-Yu Jiang, **Xiusi Chen** and Wei Wang. *#StayHome or #Marathon? Social Media Enhanced Pandemic Surveillance on Spatial-temporal Dynamic Graphs.* In Proceedings of The 30th ACM International Conference on Information and Knowledge Management (**CIKM**), 2021.

Jyun-Yu Jiang, Yichao Zhou, **Xiusi Chen**, Yan-Ru Jhou, Liqi Zhao, Sabrina Liu, Po-Chun Yang, Jule Ahmar, Wei Wang. *COVID-19 Surveiller: Toward a Robust and Effective Pandemic Surveillance System based on Social Media Mining.* In Philosophical Transactions of the Royal Society A (**Philosophical Transactions A**), 2022.

Jinliang Deng, **Xiusi Chen**, Renhe Jiang, Xuan Song, and Ivor W. Tsang. *ST-Norm: Spatial and Temporal Normalization for Multi-variate Time Series Forecasting*. In Proceedings of 27th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (**KDD**), 2021.

Seungbae Kim, **Xiusi Chen**, Jyun-Yu Jiang, Jinyoung Han, and Wei Wang. *Evaluating audience loyalty and authenticity in influencer marketing via multi-task multi-relational learning*. In The 15th International AAAI Conference on Web and Social Media (**ICWSM**), 2021.

Jinliang Deng, **Xiusi Chen**, Zipei Fan, Renhe Jiang, Xuan Song, and Ivor W. Tsang. 2021. *The Pulse of Urban Transport: Exploring the Co-evolving Pattern for Spatio-temporal Forecasting*. In ACM Transactions on Knowledge Discovery in Data (**TKDD**), 2021.

Yu Zhang, **Xiusi Chen**, Yu Meng, Jiawei Han, *Hierarchical Metadata-Aware Document Categorization under Weak Supervision*. In Proceedings of the Fourteenth ACM International Conference on Web Search and Data Mining (**WSDM**), 2021.

Ruirui Li, Xian Wu, **Xiusi Chen**, Wei Wang, *Self-Attentive Few-Shot Learning for New User Recommendation in Location-based Social Networks*. In Proceedings of The Web Conference 2020 (**WWW**), 2020. Oral.

Fangbo Tao*, Chao Zhang*, **Xiusi Chen**, Meng Jiang, Tim Hanratty, Lance Kaplan and Jiawei Han, *Doc2Cube: Automated Document Allocation to Text Cube via Dimension-Aware Joint Embedding*. In Proceedings of the 17th IEEE International Conference on Data Mining (**ICDM**), 2018. Oral.

Chao Zhang, Fangbo Tao, **Xiusi Chen**, Jiaming Shen, Meng Jiang, Brian Sadler, Michelle Vanni and Jiawei Han, *TaxonGen: Constructing Topical Concept Taxonomy by Adaptive Term Embedding and Clustering*. In Proceedings of 24th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (**KDD**), 2018. Oral.

Chang Zhou, Jinze Bai, Junshuai Song, Xiaofei Liu, Zhengchao Zhao, **Xiusi Chen**, and Jun Gao, *ATRank: An Attention-Based User Behavior Modeling Framework for Recommendation*. In Proceedings of the 32nd AAAI Conference on Artificial Intelligence(**AAAI**), 2018. Oral.

Xiusi Chen, Qimu Zheng, Xinxi Jiang and Jun Gao, *The Design and Implementation of Index on Distributed Big Graph Systems* In Proceedings of the 34th National Database Conference(**NDBC**), 2017. Oral.

Xiusi Chen, Xiaoyu Li, and Jun Gao, *Demo of a Semi-Supervised Method Based System to Detect Advertisements from QA pairs* In Proceedings of the 33rd National Database Conference(**NDBC**), 2016. Oral.

US PATENT

Wenchao Yu, Bo Zong, Wei Cheng, Haifeng Chen and **Xiusi Chen**, *Knowledge Graph and Alignment with Uncertainty Embedding*.

PREPRINTS AND UNDER REVIEW

Xiusi Chen, Jyun-Yu Jiang, Wei-Cheng Chang, Cho-Jui Hsieh, Hsiang-Fu Yu and Wei Wang, *Graph-based Minimum Pre-training Data Generation for Few-shot Question Answering*. working paper.

Jinliang Deng, Du Yin, Yi Yang, **Xiusi Chen**, Jiewen Deng, Renhe Jiang, Xuan Song, Ivor W. Tsang, *Multi-variate Time Series Forecasting with Spatial-temporal Decomposition*. under review.

ACADEMIC SERVICE

Conference Program Committee
KDD'20,22,23; WSDM'22-23; SSL@WWW'21;
ICML'23; NeurIPS'22; ICLR'22; AAAI'21-23; IJCAI-ECAI'22-23;
ACL'23.

Conference Subreviewer
KDD'18, CIKM'18, WISE'18, IJCAI'19

Journal Reviewer
IEEE Transactions on Big Data (TBD).

Student Volunteer
KDD'20.

HONORS AND AWARDS

SIGIR Student Travel Grant   Sept. 2022
ACM SIGIR

SIGIR Student Travel Grant Sept. 2021
ACM SIGIR

Leo KoGuan Fellowship Sept. 2016
top 2%, Peking University

Merit Student Sept. 2016
top 5%, Peking University

Graduate Student Academic Fellowship Sept. 2015, 2016, 2017
Peking University

3rd Place of 17th Chinese University Basketball Association (CUBA) Championships, Beijing Division Oct. 2014
On behalf of Peking University, Federation of University Sports of China

6th Place of the High School Students Swimming Contest of Hunan Province, 100M Breaststroke Sept. 2010
The Education Department of Hunan Province

TEACHING EXPERIENCE

CS 245: Big Data Analysis Fall 2020
Teaching Associate, University of California, Los Angeles

CS 143: Database Systems Spring 2020
Teaching Assistant, University of California, Los Angeles

CS 31: Introduction to Computer Science Fall 2019, Winter 2020
Teaching Assistant, University of California, Los Angeles

Introduction to Database Systems (Honor Track) Spring 2016
Teaching Assistant, Peking University

Database Systems Principles and Technologies Fall 2016
Teaching Assistant, Peking University