

Xiusi Chen

3551 Boelter Hall, UCLA, Los Angeles, California 90095

☎ (+1) (310)-913-7838 • ✉ xchen@cs.ucla.edu

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

6/2023 - 12/2023

Query Understanding team, Applied Scientist Intern

Amazon Search

6/2022 - 9/2022

PECOS team, Applied Scientist Intern

NEC Laboratories America

6/2019 - 9/2019

Data Science & System Security, Research Intern

Alibaba

7/2016 - 12/2016

DAMO Academy, Research Intern

PREPRINTS AND UNDER REVIEW

Xiusi Chen, Jyun-Yu Jiang, Wei-Cheng Chang, Cho-Jui Hsieh, Hsiang-Fu Yu, Wei Wang, *MinPrompt: Graph-based Minimal Prompt Data Augmentation for Few-shot Question Answering*. under review, on arxiv.

Xiusi Chen, Wei-Yao Wang, Ziniu Hu, Curtis Chou, Lam Hoang, Kun Jin, Mingyan Liu, P. Jeffrey Brantingham, Wei Wang, *Professional Basketball Player Behavior Synthesis via Planning with Diffusion*. under review, on arxiv.

Jinliang Deng, **Xiusi Chen**, Renhe Jiang, Xuan Song, Ivor W. Tsang, *Learning Structured Components for Short-Term Multi-variate Time Series Forecasting*. under review.

Yu Zhang, Yanzhen Shen, **Xiusi Chen**, Bowen Jin, Jiawei Han, “*Why Should I Review This Paper?*” *Unifying Semantic, Topic, and Citation Factors for Paper-Reviewer Matching*. under review.

Bowen Jin, Hansi Zeng, Guoyin Wang, **Xiusi Chen**, Tianxin Wei, Ruihui Li, Zhengyang Wang, Zheng Li, Yang Li, Hanqing Lu, Suhang Wang, Jiawei Han, Xianfeng Tang, *Language Models as Semantic Indexers*. under review.

Jessie W. Y. Ko, Shengquan Ni, Alexander Taylor, **Xiusi Chen**, Yicong Huang, Avinash Kumar, Sadeem Alsudais, Zuozhi Wang, Xiaozhen Liu, Wei Wang, Chen Li, Suellen Hopfer, *How the Experience of California Wildfires Shapes Twitter Climate Change Framings*. under review.

Alexander Taylor, Yicong Huang, Junheng Hao, Xinyuan Lin, **Xiusi Chen**, Wei Wang, Chen Li, *Data Science Tasks Using Scripts versus GUI-based Workflows: The Good, the Bad, and the Ugly*. under review.

PUBLICATIONS

Xiushi Chen, Yu Zhang, Jinliang Deng, Jyun-Yu Jiang, 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. Long paper, Best Poster Award (Honorable Mention)

Xiushi Chen, Jyun-Yu Jiang, 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.

Xiushi Chen, Jyun-Yu Jiang, Kun Jin, Yichao Zhou, Mingyan Liu, Jefferey Brantingham, 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.

Yu Zhang, Bowen Jin, **Xiushi Chen**, Yanzhen Shen, Yunyi Zhang, Yu Meng, Jiawei Han, *Weakly Supervised Multi-Label Classification of Full-Text Scientific Papers*. In Proceedings of 29th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (**KDD**), 2023.

Shengquan Ni, Yicong Huang, Jessie W. Y. Ko, Alexander Taylor, **Xiushi Chen**, Avinash Kumar, Sadeem Alsudais, Zuozhi Wang, Xiaozhen Liu, Wei Wang, Suellen Hopfer, Chen Li, *Using Texera to Characterize Climate Change Discussions on Twitter During Wildfires*. (**KDD**), 2023. (poster paper)

Jinliang Deng, **Xiushi Chen**, Renhe Jiang, Xuan Song, 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, **Xiushi Chen**, 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, **Xiushi Chen**, 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, **Xiushi 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, **Xiushi Chen**, Renhe Jiang, Xuan Song, 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, **Xiushi Chen**, Jyun-Yu Jiang, Jinyoung Han, 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, **Xiushi Chen**, Zipei Fan, Renhe Jiang, Xuan Song, 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, **Xiushi 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, **Xiushi 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*, **Xiushi 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, **Xiushi 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, **Xiushi 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.

Xiushi 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.

Xiushi 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.

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

ACADEMIC SERVICE

Conference Program Committee

KDD'20-23; WSDM'22-24; SSL@WWW'21;
ICML'23; NeurIPS'22-23; ICLR'22-24; AAAI'21-24; 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, KDD'23.

HONORS AND AWARDS

Best Poster Award (Honorable Mention)

SIAM International Conference on Data Mining (SDM)

Apr. 2023

SIAM Student Travel Award

SIAM

Feb. 2023

SIGIR Student Travel Grant

ACM SIGIR

Sept. 2022

SIGIR Student Travel Grant

ACM SIGIR

Sept. 2021

Leo KoGuan Fellowship

top 2%, Peking University

Sept. 2016

Merit Student

top 5%, Peking University

Sept. 2016

Graduate Student Academic Fellowship

Peking University

Sept. 2015, 2016, 2017

3rd Place of 17th Chinese University Basketball Association (CUBA) Championships, Beijing Division

On behalf of Peking University, Federation of University Sports of China

Oct. 2014

6th Place of the High School Students Swimming Contest of Hunan Province, 100M Breaststroke

The Education Department of Hunan Province

Sept. 2010

TEACHING EXPERIENCE

CS 245: Big Data Analysis

Teaching Associate, University of California, Los Angeles

Fall 2020

CS 143: Database Systems

Teaching Assistant, University of California, Los Angeles

Spring 2020

CS 31: Introduction to Computer Science

Teaching Assistant, University of California, Los Angeles

Fall 2019, Winter 2020

Introduction to Database Systems (Honor Track)

Teaching Assistant, Peking University

Spring 2016

Database Systems Principles and Technologies

Teaching Assistant, Peking University

Fall 2016