Dr. **Meng XIA**

Basic Information

Email: mengxia@tamu.edu Homepage: https://www.xiameng.org/

Research areas: Human-AI Interaction, Data Visualization, and Education Technology

Education Background and Research Experience

2024.1-present Texas A&M University, Computer Science and Engineering, Assistant Professor

2022.1-2024.1 Carnegie Mellon University, Human Computer Interaction Institute, Postdoc

2021.1-2021.12 KAIST, Postdoctoral researcher, School of Computing, Postdoc

2020.9-2021.1 Hong Kong University of Science and Technology, Computer Science and Engineering, Postdoc

2017.8-2020.8 Hong Kong University of Science and Technology, Computer Science and Engineering, PhD

2019.6-2019.10 University of Toronto, Computer Science and Engineering, Visiting student

2014.9-2017.3 Zhejiang University, State Key Laboratory of Computer Aided Design and Computer Graphics (CAD&CG), Computer Science and Engineering, Master

2009.9-2013.7 Hangzhou Dianzi University, Literature in English (second degree), Bachelor

2009.9-2013.7 Hangzhou Dianzi University, Computer Science and Engineering, Bachelor

Publications

- Sitong Pan, Robin Schmucker, Bernardo Garcia Bulle Bueno, Salome Aguilar Llanes, Fernanda Albo Alarcón, Hangxiao Zhu, Adam Teo, **Meng Xia**, "TutorUp: What If Your Students Were Simulated? Training Tutors to Address Engagement Challenges in Online Learning" in CHI 2025
- Gefei Zhang, Shenming Ji, Yicao Li, Jingwei Tang, Jihong Ding, **Meng Xia**, Guodao Sun, Ronghua Liang, "CPVis: Evidence-based Multimodal Learning Analytics for Evaluation in Collaborative Programming" in CHI 2025
- Wai Tong, Haobo Li, **Meng Xia**, Kam Kwai Wong, Ting-Chuen Pong, Huamin Qu, Yalong Yan, "Exploring Spatial Hybrid User Interface for Visual Sensemaking" in TVCG 2025
- Xian Xu, Wai Tong, Wei Zheng, **Meng Xia**, Lik-Hang Lee, Huamin Qu, "Transforming Cinematography Lighting Education in the Metaverse" in Visual Informatics 2024
- Yi-Fan Cao, Reza Hadi Mogavi, **Meng Xia**, Leo Yu-Ho Lo, Xiaoqing Zhang, Mei-Jia LOU, Lennart E. Nacke, Yang Wang, Huamin Qu, "The Jade Gateway to Trust: Exploring How Socio-Cultural Perspectives Shape Trust Within Chinese NFT Communities" in CSCW 2024
- Zixin Chen, Jiachen Wang, **Meng Xia**, Kento Shigyo, Dingdong Liu, Rong Zhang, Huamin Qu, "StuGPTViz: A Visual Analytics Approach to Understand Student-ChatGPT Interactions" in IEEE VIS 2024
- Wai Tong, Kento Shigyo, Lin-PinJobg Yuan, Mingming Fan, Ting-Chuen Pong, Huamin Qu, **Meng Xia**, "VisTellAR: Embedding Data Visualization to Short-form Videos Using Mobile Augmented Reality" in TVCG 2024
- Wai Tong, **Meng Xia**, Huamin Qu, "Exploring Stage Lighting Education in Metaverse" in CHI LBW 2024
- Ha Tien Nguyen, Conrad Borchers, **Meng Xia**, Vincent Aleven, "Designing Tools for Caregiver Involvement in Intelligent Tutoring Systems for Middle School Mathematics" in ISLS 2024
- Robin Schmucker, **Meng Xia**, Amos Azaria, Tom Mitchell, "Ruffle&Riley: Insights from Designing and Evaluating a Large Language Model-Based Conversational Tutoring System" in AIED 2024
- Robin Schmucker, **Meng Xia**, Amos Azaria, Tom Mitchell, "Ruffle&Riley: Towards the Automated Induction of Conversational Tutoring Systems" in NeurIPS 2023 (Workshop)
- Qian Zhu, Linping Yuan, Zian Xu, Leni Yang, **Meng Xia**, Zhuo Wang, Hai-Ning Liang, Xiaojuan Ma, "From Reader to Experiencer: Design and Evaluation of a VR Data Story for Promoting the Situation Awareness of Public Health Threats" in IJHCS 2023
- **Meng Xia**, Xinyi Zhao, Dong Sun, Yun Huang, Jonathan Seawall, Vincent Aleven, "Involving Teachers in the Data-driven Improvement of Intelligent Tutors: A Prototyping Study" in AIED 2023

- Conrad Borchers, Paulo F. Carvalho, **Meng Xia**, Pinyang Liu, Kenneth R. Koedinger and Vincent Aleven, "What Makes Problem-Solving Practice Effective? Comparing Paper and AI Tutoring" in ECTEL 2023
- Wai Tong, **Meng Xia**, Jason Wong, Ting-Chuen PONG, Huamin Qu, Yalong Yang, "Towards an Understanding of Asymmetric Collaborative Visualization on Problem-solving" In IEEE VR 2023
- Xian Xu, Wai Tong, Wei Zheng, **Meng Xia**, Lik-Hang Lee, Huamin Qu, "Cinematography in the Metaverse: Exploring the Lighting Education on a Soundstage" In IEEE VR 2023 (Workshop)
- Yifan Cao, **Meng Xia**, Kento Shigyo, Furui Cheng, Qianhang Yu, Xingxing Yang, Hongkun Liu, Wei Zeng, Yang Wang, Huamin Qu, "NFTeller: Dual-centric Visual Analytics for Assessing Market Performance of NFT Collectibles", In VINCI 2023
- Yifan Cao, **Meng Xia**, Kento Shigyo, Furui Cheng, Qianhang Yu, Xingxing Yang, Hongkun Liu, Wei Zeng, Yang Wang, Huamin Qu, "NFTeller: Dual Centric Visual Analytics of NFT Transactions", In IEEE BigComp (Poster)
- **Meng Xia**, Yankun Zhao, Mehmet Hamza Erol, Jihyeong Hong, and Juho Kim. "Understanding Distributed Tutorship in Online Language Tutoring." In ACM LAK, 2022.
- **Meng Xia,** Yankun Zhao, Jihyeong Hong, Mehmet Hamza Erol, Taewook Kim, and Juho Kim. "RLens: A Computer-aided Visualization System for Supporting Reflection on Language Learning under Distributed Tutorship." In L@S, 2022.
- **Meng Xia,** Qian Zhu, Xingbo Wang, Fei Nie, Huamin Qu, Xiaojuan Ma. "Persua: A Visual Interactive System to Enhance the Persuasiveness of Arguments in Online Discussion." In ACM CSCW, 2022
- Qian Zhu, Leo Yu Ho Lo, **Meng Xia**, Zixin Chen, Xiaojuan Ma. "Bias-Aware Design for Informed Decisions: Raising Awareness of Self-Selection Bias in User Ratings and Reviews." In ACM CSCW, 2022
- Wai Tong, Zhutian Chen, **Meng Xia**, Leo Yu-Ho Lo, Linping Yuan, Benjamin Bach, Huamin Qu. "Exploring Interactions with Printed Data Visualizations in Augmented Reality. " In IEEE VIS, 2022, **Honorable Mention Award**
- Sean Tsung, Huan Wei, Haotian Li, **Meng Xia**, Yong Wang, Huamin Qu. "BlockLens: Visual Analytics of Student Coding Behaviors in Block-Based Programming Environments. " In ACM L@S, 2022 (Short paper)
- Mingzhe Li*, Franchesca Spector*, **Meng Xia***, Mina Oh*, Peter Cederberg, Yuqi Gong, Kristen Shinohara, Patrick Carrington. "It Feels Like Taking a Gamble": Exploring Perceptions, Practices, and Challenges of Using Makeup and Cosmetics for People with Visual Impairments. "In ACM CHI, 2022
- Jeongyeon Kim, Yubin Choi, **Meng Xia**, Juho Kim. "Mobile-Friendly Content Design for MOOCs: Challenges, Requirements, and Design Opportunities. " In ACM CHI, 2022, **Best Paper Award**
- Kabdo Choi, Hyungyu Shin, **Meng Xia**, Juho Kim. "AlgoSolve: Supporting Subgoal Learning in Algorithmic Problem-Solving with Learnersourced Microtasks. " In ACM CHI, 2022
- Reshika Palaniyappan Velumani, **Meng Xia**, Jun Han, Chaoli Wang, Alexis Lau, Huamin Qu. "Explaining Air Quality Forecast for Verifying Domain Knowledge using Feature Importance Visualization. " In ACM IUI, 2022
- Mingfei Sun, Zhenhui Peng, **Meng Xia**, Xiaojuan Ma. "Investigating the Effects of Robot Engagement Communication on Learning from Demonstration. " In International Journal of Social Robotics, 2021
- **Meng Xia**, Reshika Palaniyappan Velumani, Yong Wang, Huamin Qu, Xiaojuan Ma. "QLens: Visual Analytics of Multi-step Problem-solving Behaviors for Improving Question Design. " In TVCG, 2021
- **Meng Xia**, Yuya Asano, Joseph Jay Williams, Huamin Qu, Xiaojuan Ma. "Using Information Visualization to Promote Students' Reflection on "Gaming the system" in Online Learning. " In ACM L@S, 2020
- **Meng Xia**, Min Xu, Chuan-en Lin, Ta-ying Cheng, Huamin Qu, Xiaojuan Ma. "SeqDynamics: Visual Analytics for Evaluating Online Problem-solving Dynamics. " In IEEE EuroVIS, 2020
- Huan Wei, Haotian Li, **Meng Xia**, Yong Wang, Huamin Qu. "Predicting Student Performance in Interactive Online Question Pools Using Mouse Interactions. " In ACM LAK, 2020
- **Meng Xia**, Huan Wei, Min Xu, Leo Yu Ho Lo, Yong Wang, Rong Zhang, Huamin Qu. "Visual Analytics of Student Learning Behaviors on K-12 Mathematics E-learning Platforms. " In IEEE VIS, 2019 (Poster), **Best Poster Award**
- **Meng Xia**, Mingfei Sun, Huan Wei, Qing Chen, Yong Wang, Lei Shi, Huamin Qu, Xiaojuan Ma. "PeerLens: Peer-inspired Interactive Learning Path Planning in Online Question Pool. " In ACM CHI, 2019
- **Meng Xia**, Rong Zhang, Ren Peng, Jinhui Yu. "Generation of Thangka Relief from Line Drawings." In SCIENTIA SINICA Informationis, 2018
- Ke Xu, **Meng Xia**, Xing Mu, Yun Wang, Nan Cao. "EnsembleLens: Ensemble-based Visual Exploration of Anomaly

Detection Algorithms with Multidimensional Data." In TVCG, 2018

- Zhenhui Peng, Jeehoon Yoo, **Meng Xia**, Sunghun Kim, Xiaojuan Ma. "Exploring How Software Developers Work with Mention Bot in GitHub." In ACM Chinese CHI, 2018
- Mingfei Sun, Yiqing Mou, Hongwen Xie, **Meng Xia**, Michelle Wong, Xiaojuan Ma. "Estimating Emotional Intensity from Body Poses for Human-Robot Interaction." In IEEE SMC, 2018
- Yuanli Feng, **Meng Xia**, Penglei Ji, Xiao Zhou, Ming Zeng, Xinguo Liu. "Deep Spherical Panoramic Representation for 3D Shape Recognition." In IEEE Computer-Aided Design & Computer Graphics, 2017
- Yinglie Zhang, **Meng Xia**, Linqiang Chen. "Designing Kinect Game based on Video Tracking." In Computer Engineering and Applications, 2015

Scholarships and Prizes

Honorable Mention Award at IEEE VIS 2022

Best Paper Award at ACM CHI 2022

SENG TOP Research Program Graduate Award, 2018-2019

Best Poster Award at IEEE VIS, 2019

Overseas Research Award, 2018-2019

National Scholarship, 2015 & 2011

Chairman of Postgraduate Association of Computer Science Department, 2014-2015

Teaching Experience

Instructor at Texas A&M for 689 Human-AI Interaction, Spring 2024

Instructor at CMU for 05432/05832 Personalized Online Learning, Fall 2022

Teaching Assistant Coordinator at HKUST, Spring 2020

Teaching Assistant at HKUST for COMP 2611 Computer Organization, Spring 2018 & Fall 2018

Community Service

Program Chair of Learning @ Scale 2024

Youth Editor for the Journal of Visual Informatics

Area Chair for CHI 2023, 2024, 2025; CHI (Late Breaking Work) 2022

Program committee member for IEEE VIS 2021, 2022; IUI 2022; CSCW 2023

Reviewer of CHI 2019, 2020, 2021, 2022, 2023, 2024; VIS 2020, 2021, 2022, 2023; CSCW 2021, 2022, 2023; ChinaVis 2019, 2020, 2021, 2022; LAK 2022