Yueqing Liang

1205 W Arthington St, Chicago, IL 60607
Google Scholar | Homepage | LinkedIn | yueqingliang1@gmail.com | 773-882-8848

Education

Illinois Institute of Technology — **January 2022 – December 2026 (expected)**
Ph.D. in Computer Science | Advisor: Prof. Kai Shu | GPA: 4.0 — *Chicago, IL, USA*

The University of Sydney — **Jul. 2018 – Jun. 2020**
M.S. in Big Data | Exchange in HEC Paris (2019 Fall) | GPA: 3.5 — *Sydney, NSW, Australia*

HEC Paris (Exchange) — **September 2019 – December 2019**
Grande Ecole of Master in Management | Advisor: Prof. Xitong Li — *Jouy-en-Josas, Paris, France*

Queen Mary University of London — **September 2014 – June 2018**
B.Eng. in Telecommunications Engineering with Management | GPA: 3.2 — *London, UK*

Research Interests

Data mining, trustworthy machine learning and *NLP*, with a focus on *recommender systems, LLMs*, and *fairness*.

Publications

- **Yueqing Liang**, Liangwei Yang, Chen Wang, Xiongxiao Xu, Philip S. Yu, Kai Shu, "Taxonomy-Guided Zero-Shot Recommendations with LLMs." *Under review Coling 2025.*
- **Yueqing Liang**, Lu Cheng, Kai Shu, "FABLE: Fairness Attack in Abusive Language Detection." *Under review IEEE BigData 2024.*
- **Yueqing Liang**, Canyu Chen, Tian Tian, Kai Shu, "Fair Classification via Domain Adaptation: A Dual Adversarial Learning Approach." *Frontiers in Big Data 5, 129. Jan. 2023.*
- SJ Dillon*, **Yueqing Liang*** (co-primary), H. Russell Bernard, Kai Shu, "Investigating Gender Euphoria and Dysphoria on TikTok: Characterization and Comparison." *International Conference on Advances in Social Networks Analysis and Mining (ASONAM 2024).*
- Xiongxiao Xu, **Yueqing Liang**, Baixiang Huang, Zhiling Lan, Kai Shu, "SST: Multi-Scale Hybrid Mamba-Transformer Experts for Long-Short Range Time Series Forecasting." *Under review AAAI 2025.*
- Canyu Chen, **Yueqing Liang**, Xiongxiao Xu, Shangyu Xie, Yuan Hong, Kai Shu, "On Fair Classification with Mostly Private Sensitive Attributes." *Neural Information Processing Systems workshop on Trustworthy and Socially Responsible Machine Learning (TSRML@NeurIPS 2022).*
- Chen Wang, **Yueqing Liang**, Zhiwei Liu, Tao Zhang and Philip S. Yu, "Pre-training Graph Neural Network for Cross-Domain Recommendation." *IEEE CogMI, 2021.*
- Yunpeng Xiao, Zhixuan Zhou, **Yueqing Liang**, Kai Shu, "Understanding the concerns and choices of the public when using large language models for healthcare." *Under review CHI 2025.*
- Haoran Wang, Aman Rangapur, Xiongxiao Xu, **Yueqing Liang**, Haroon Gharwi, Carl Yang, Kai Shu, "Piecing It All Together: Verifying Multi-Hop Multimodal Claims" *Under review Coling 2025.*
- Chen Wang, Fangxin Wang, Ruocheng Guo, **Yueqing Liang**, Kay Liu, Philip S Yu, "Confidence-aware Fine-tuning of Sequential Recommendation Systems via Conformal Prediction." *Under review WSDM 2025.*
- Chen Wang, Liangwei Yang, Zhiwei Liu, Xiaolong Liu, Mingdai Yang, **Yueqing Liang**, Philip S Yu, "Collaborative Semantic Alignment in Recommendation Systems." *International Conference on Information and Knowledge Management (CIKM 2024).*
- Mudassir M Rashid, Mohammad Reza Askari, Canyu Chen, **Yueqing Liang**, Kai Shu, Ali Cinar, "Artificial Intelligence Algorithms for Treatment of Diabetes." *Algorithms 2022, 15(9), 299.*

Professional Experiences

Ping An Technology Co., Ltd. **March 2021 - June 2021**

Algorithm Research Intern *Shanghai, China*

- Proposed a general bionic architecture, functional Digestive Metabolic Network (DMN), to improve the speech synthesis effect learning from a multi-speaker dataset.
- DMN can ignore the timbre information of non-target speakers and then absorb the benefit phoneme information to generate the voice sounding like the target speaker.
- Submitted five patent proposals. Including:
  (1) "A Multimodal Emotional Speech Synthesis Method Based on EEG";
  (2) "A cross-subject multimodal emotional speech synthesis method";
  (3) "A Chinese Song Recommendation System Based on GCN";
  (4) "A multi-singer singing synthesis system based on timbre and singing style";
  (5) "Speaker discrimination system using implicit spatial clustering in GAN".

FinUp Group **November 2018 - February 2019**

Algorithm Intern *Beijing, China*

- Built a complete user profile feature system for measuring users' credit risk by using relationship network technology.
- Participated in the establishment of scorecard models and anti-fraud models, and formulated corresponding risk control strategies to control financial business risks.
- Performed visual monitoring and early warning of models, discovered risk points, and optimized online models.
- Completed the test and evaluation of third-party data sources, as well as the design and implementation of the entire process of the corresponding data source docking, and risk control product output.

Project Experiences

Research Assistant | *Lehigh University* | *Advisor: Prof. Sihong Xie* **June 2019 - August 2019**

- Goal: Worked on probability graphical model for trustworthy fraud detection of social media.
- Built a pipeline by Python to generate experimental sample data for any given number of nodes and depth.
- Conducted an adaptive belief propagation algorithm to significantly increase the computational speed in a particular node's belief update.

Research Assistant | *HEC Paris* | *Advisor: Prof. Xitong Li* **October 2019 - March 2020**

- Goal: Investigate user learning behavior on Coursera to explore possible bias.
- Processed Coursera development dataset by SQL to get statistics information of each course such as completion by time and exam pass rate.
- Conducted the study of the relationship between specific learning behavior characteristics and learning effects of MOOC platforms using statistical methods and data mining methods.

Meeting Room Booking App | *Java, SQL, Android Studio* **November 2017 - March 2018**

- Developed an Android application for a meeting room booking management system that can be downloaded and used.
- Built a cloud-based database to store information and achieved the function of room reallocation during periods of high usage of the rooms, etc.

Technical Skills

- **Languages**: Python, LaTeX, Markdown, Git, SQL, HTML
- **Tools**: Pytorch, Scikit-learn, Pandas, Numpy, Matplotlib
- **Software**: VS Code, Jupyter Notebook, Tableau, Spyder, Overleaf
- **Fields**: Machine Learning, Data Mining, Natural Language Processing (NLP), Large Language Models (LLMs), Recommender Systems, Recommendation, Responsible AI, Fairness in Machine Learning, Adversarial Machine Learning, Transfer Learning, Domain Adaptation

Relevant Courses

- Machine Learning
- Digital Signal Processing
- Algorithms Analysis
- Data Structure
- Trustworthy ML
- Internet Technology
- Systems Programming
- Predictive Analytics

Services

- **Conferences/Journals Reviewer**
  AAAI 2025, WSDM 2025, Coling 2025, KDD 2024, WWW 2024, EMNLP 2024, TKDD 2024, CIKM 2024, TIST 2024, ASONAM 2024, AIES 2024, IJCAI 2024, SIGIR 2024, ICWSM 2024, PAKDD 2024, AAAI 2024
- **Teaching Assistant**
  CS 585: Natural Language Processing, 2022 Fall, IIT CS 584: Machine Learning, 2024 Fall, IIT