Pengqi "Eric" WANG

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Education

The Hong Kong University of Science and Technology *Sep 2023 – Jul 2025 (Expected)*
M. Phil. in Computational Media and Arts, Guangzhou campus

- **GPA: 4.06 / 4.3**
- **Cognate: Human Computer Interaction**
- Thesis Topic: Enhancing Children's Reading Engagement through Multi-Modal Interactive AI Agent
- Advisor: Prof. Mingming FAN (Primary), Prof. Muzhi ZHOU (Co)
- Awards: Postgraduate Studentship (1,426 USD per month); Postgraduate Research Funding & Travel Grant

Hong Kong Baptist University *Sep 2019 – Jun 2023*
B. B. A. (Honours) in e-Business Management and Information Systems (First Class), with minor in Computer Science and Technology, BNU-HKBU UIC campus

- **GPA: 3.66 / 4.0 (Ranking top 5%)**
- Thesis Topic: A Comparative Study of Tree-Based and Transformer-based Models for Fake Review Detection on Yelp
- Advisor: Prof. May Ying WANG (Academic), Prof. Don Junyi CHAI (Final Year Project, Mentor)
- Awards: First-Class Scholarship (2019-2020), Second-Class Scholarship (2020-2021, 2021-2022, 2022-2023)

Research Interest

Human-AI Collaboration, Educational Technology, Technology for Social Good, Computer-Supported Cooperative Work (CSCW), Assistive Technology, Healthcare, etc.

Publications

1. Q. Wei, J. Zhang, P. Wang, X. Jin, and M. Fan, "Augmented Library: Toward Enriching Physical Library Experience Using HMD-Based Augmented Reality," in *Proc. 17th Int. Symp. Visual Information Communication and Interaction (VINCI)*, 2024.
2. M. Wang, B. Deng, and P. Wang, "From Hallucination to Trust: Leveraging Chain-of-Thoughts and Empathy in LLM-Empowered Agent," in *Proc. 24th Int. Conf. Electronic Business (ICEB)*, 2024.
3. M. Wang, N. Jiang, P. Wang, and B. Xiong, "Enhancing Well-Being and Reliance on AIGC-Powered Digital Assistants," in *Proc. 2024 UNNC-CNAIS Paper Development Workshop*, 2024.
4. M. Wang, P. Wang, and X. Chen, "Customer Perceptions and Experiences Regarding Information Retrieval Using Generative AI and Search Engines: A Comparative Analysis," in *Proc. Asia Pacific Marketing Academy Annual (APMA)*, 2024.
5. M. Wang and P. Wang, "Decoding Business Applications of Generative AI: A Bibliometric Analysis and Text Mining Approach," in *Proc. 23rd Int. Conf. Electronic Business (ICEB)*, 2023.
6. P. Wang, Y. Lin, and J. Chai, "Unmasking Deception: A Comparative Study of Tree-Based and Transformer-based Models for Fake Review Detection on Yelp," in *Proc. IEEE Int. Conf. Systems, Man, and Cybernetics (SMC)*, 2023.
7. M. Wang and P. Wang, "Generative AI in Marketing: A New Era of Innovation and Opportunity," in *Proc. Asia Pacific Marketing Academy Annual (APMA)*, 2023.
8. P. Wang, M. Yu, and Y. Liu, "Assessing the Content Topics of the Educational Videos on Tik Tok for Science Communication," in *Proc. Int. Seminar on Education, Management and Social Sciences (ISEMSS)*, 2022.

Selected Research Projects

Understanding and Facilitating Learning with AI in Multi-Source Information Environment for College Students *Jun 2024 – Sep 2024*

- Supervised by Prof. Mingming FAN @ Accessible & Pervasive User EXperience (APEX) Lab, HKUST
- Led qualitative research understanding and designing AI-powered tools to support college students in multi-source information environments, revealed a framework of students' multi-source information behaviors, provided design implications for enhancing AI-assisted academic tools.
- Conducted focus group study sessions and participatory design workshops, analyzed the data using inductive and deductive analysis to generate actionable insights, and authored the manuscript.

Augmented Library: Toward Enriching Physical Library Experience Using HMD-Based AR *Mar 2024 – Jun 2024*

- Supervised by Prof. Mingming FAN @ Accessible & Pervasive User EXperience (APEX) Lab, HKUST
- Designed, developed, and evaluated an HMD-based AR system, Augmented Library, to revitalize physical library experiences by integrating interactive digital features that enhance book discovery and community engagement for college students.

From Hallucination to Trust: Leveraging CoT and Empathy in LLM-Empowered Agent *Mar 2024 – Jun 2024*

- Supervised by Dr. May Ying WANG (HKBU-UIC) & Dr. Amber Bingjie DENG (XJT-LiverpoolU)
- Explored how Chain-of-Thought reasoning and empathy expressions can enhance user experience with LLMs in critical interaction scenarios, specifically hallucination and service failure, contributing to the development of trustworthy and user-centric AI systems.
- Developed an AI-powered conversational agent based on LobeHub framework for field study experiment, prepared the questionnaire, and authored the manuscript.

Investigating the Role of AI in the Team Synchronous-Asynchronous Collaboration Loop *Mar 2024 – Present*

- Supervised by Prof. Mingming FAN @ Accessible & Pervasive User EXperience (APEX) Lab, HKUST. (Work in Progress)
- Proposed and developed an AI-assisted collaborative ideation system to enhance team collaboration across synchronous and asynchronous modes, with a focus on improving idea comprehension and evolution in group ideation processes. Prepared and conducted user evaluations to assess the effectiveness of AI-assisted features in collaborative environments.

Exploring the Design of AI-mediated Emotion Communication for Deaf and Hard of Hearing People in Online Meetings *Feb 2024 – Present*

- Supervised by Prof. Mingming FAN @ Accessible & Pervasive User EXperience (APEX) Lab, HKUST. (Work in Progress)
- Designed, developed, and implemented an AI-driven emotion support system for Deaf and Hard of Hearing (DHH) participants in online meetings via detecting, interpreting, and visualizing emotional states in real-time, addressing the unique emotional challenges faced by DHH users in virtual environments.
- Worked collaboratively with DHH community and planned user evaluations to assess its effectiveness in improving participation and reducing social isolation.

Enhancing Well-Being and Reliance on AIGC-Powered Digital Assistants *Feb 2024 – Jun 2024*

- Supervised by Dr. May Ying WANG & Dr. Na JIANG (HKBU-UIC)
- Investigated the impact of explainability signals and dialogue strategies on user well-being and reliance on AIGC-powered digital assistants, aiming to refine their design and enhance user satisfaction.
- Designed experiments, developed systems, and presented the working paper at the 2024 UNNC-CNAIS Paper Development Workshop, gathering valuable insights from conference mentor Atreyi Kankanhalli for future research directions.

A Comparative Study of Tree-Based and Transformer-based Models for Fake Review Detection *Jan 2023 – Jun 2023*

- Supervised by Dr. Don Junyi CHAI (IEEE Member, HKBU-UIC)
- Spearheaded an investigation comparing traditional tree-based models (Random Forest, XGBoost) with state-of-the-art transformer-based models (BERT, GPT-3) for fake online review detection in e-commerce

context. Analyzed the effectiveness of textual features, sampling methods, and overall detection performance using a large-scale dataset.

- Implemented and evaluated multiple ML approaches, including feature engineering, balanced sampling techniques, and model training.

Professional Experiences

Data Analyst Intern *Jul 2022 – Nov 2022*
eBay Inc. @ Top Seller Account Management Team, SZ Branch

Information Systems Intern *Jun 2022 – Jul 2022*
Kingdee International Software Group @ Kingdee China Shared Service Center

References

Prof. Mingming FAN
mingmingfan@ust.hk
Assistant Professor in Computational Media and Arts and Internet of Things at HKUST (Guangzhou); Assistant Professor in Division of Integrative Systems and Design and Dept. of Computer Science and Engineering at HKUST.

Prof. May Ying WANG
ywang@uic.edu.cn
Associate Professor, Programme Director, Faculty of Business and Management, Beijing Normal University-Hong Kong Baptist University United International College.