PENGQI "ERIC" WANG

The Hong Kong University of Science and Technology (Guangzhou)
pwang294@connect.hkust-gz.edu.cn | pengqiwang.com

EDUCATION

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

- **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 (PGS); Postgraduate Research Funding & Travel Grant

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

- **GPA** 3.66 / 4.0 (Ranking top 5%)
- **Thesis Topic** Unmasking Deception: A Comparative Study of Tree-Based and Transformer-based Models for Fake Review Detection on Yelp [a6]
- **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 a2, a3, a4, a5, a7, c1,
Conversational Agent a2, a3,
Educational Technology a1, a8, b1,
Electronic Business a4, a6, a7,
and **Computer-Supported Cooperative Work** (c3), **Assistive Technology** (c4), **Healthcare** (c2), etc.

PUBLICATIONS

a. Conference Papers & Presentations (#: Presenter)

a1. Wei, Q., Zhang, J., **Wang, P.,** Jin, X., Fan, M.*(2024). "Augmented Library: Toward Enriching Physical Library Experience Using HMD-Based Augmented Reality", *The 17th International Symposium on Visual Information Communication and Interaction (VINCI 2024),* Hsinchu, Taiwan, December 2024.

a2. Wang, M., Deng, B.*, **Wang, P.** (2024). "From Hallucination to Trust: Leveraging Chain-of-Thoughts and Empathy in LLM-Empowered Agent", *The 24rd International Conference on Electronic Business (ICEB 2024)*, Zhuhai, China, Oct 2024.

a3. Wang, M.*, Jiang, N., **Wang, P.** [#], Xiong, B. (2024). "Enhancing Well-Being and Reliance on AIGC-Powered Digital Assistants", *2024 UNNC-CNAIS Paper Development Workshop*, Ningbo, China, July 2024. (Conference Mentor: Atreyi Kankanhalli)

a4. Wang, M.*, **Wang, P.** [#], Chen. X. (2024). "Customer Perceptions and Experiences Regarding Information Retrieval Using Generative AI and Search Engines: A Comparative Analysis", *Asia Pacific Marketing Academy Annual Conference (APMA 2024)*, Hong Kong, May 2024.

a5. Wang, M. [#], **Wang P.*** (2023). "Decoding Business Applications of Generative AI: A Bibliometric Analysis and Text Mining Approach", *The 23rd International Conference on Electronic Business (ICEB 2023),* Chiayi, Taiwan, October 2023.

a6. **Wang, P**. [#], Lin, Y., Chai J.* (2023). "Unmasking Deception: A Comparative Study of Tree-Based and Transformer-based Models for Fake Review Detection on Yelp", *IEEE International Conference on Systems, Man, and Cybernetics (SMC 2023)*, Hawaii, USA, October 2023.

a7. Wang, M.*, **Wang P.** [#] (2023). "Generative AI in Marketing: A New Era of Innovation and Opportunity", *Asia Pacific Marketing Academy Annual Conference (APMA 2023)*, Guangzhou, China, September 2023.

a8. **Wang, P.,** Yu, M., Liu, Y.* (2022). "Assessing the Content Topics of the Educational Videos on Tik Tok for Science Communication". *International Seminar on Education, Management and Social Sciences (ISEMSS 2022)*, Chongqing, China, July 2022.

b. Submitted Conference Papers

b1. **Wang, P.**, Xu, M., Feng, L., Fan, M. (2025). "Understanding and Facilitating Learning with AI in Multi-Source Information Environment for College Students", Submitted to *ACM CHI Conference on Human Factors in Computing Systems (CHI '25)*.

c. Paper in Progress

c1. Wang, M., Jiang, N., **Wang, P.** "Enhancing Well-Being and Reliance on AIGC-Powered Digital Assistants: The Role of Explainability and Conversational Strategies"

c2. Yu, M., Guo, Y., Cao, Y., **Wang, P.** "MediGuideBot: Advancing Trustworthiness and Accuracy of Chatbot Applied in Virtual Triage"

c3. Feng, L., Shi, Q., Xu, M., **Wang, P.,** Fan, M. "Investigating the Role of AI in the Team Synchronous-Asynchronous Collaboration Loop"

c4. Cao, B., **Wang, P.**, Wei, Q. "Exploring the Design of AI-mediated Emotion Communication for Deaf and Hard of Hearing People in Online Meetings"

SELECTED RESEARCH PROJECTS

Understanding and Facilitating Learning with AI in Multi-Source Information Environment for College Students [b1] Jun 2024 - Sep 2024

Supervised by Prof. Mingming FAN @ Accessible & **P**ervasive User **EX**perience (APEX) Lab, HKUST

- Led a 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 Augmented Reality [a1] Mar 2024 - Jun 2024

Supervised by Prof. Mingming FAN @ Accessible & **P**ervasive User **EX**perience (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 Chain-of-Thoughts and Empathy in LLM-Empowered Agent [a2] 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 [c3] Mar 2024 - Present (Work in Progress)

Supervised by Prof. Mingming FAN @ Accessible & **P**ervasive User **EX**perience (APEX) Lab, HKUST

- 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 [c4] Feb 2024 - Present (Work in Progress)

Supervised by Prof. Mingming FAN @ Accessible & **P**ervasive User **EX**perience (APEX) Lab, HKUST

- 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 [a3] 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.

Decoding Business Applications of Generative AI: A Bibliometric Analysis and Text Mining Approach [a5] Jun 2023 - Sep 2023
Supervised by Dr. May Ying WANG (HKBU-UIC)

- Explored and synthesized the applications of Generative AI in business and management, integrating insights from academic literature through bibliometric analysis and industry trends via text mining (LDA topic modeling) of tweets and websites, contributing to a comprehensive understanding of the current landscape and future potential of Generative AI in business contexts.

Unmasking Deception: A Comparative Study of Tree-Based and Transformer-based Models for Fake Review Detection on Yelp [a6] 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 machine learning approaches, including feature engineering, balanced sampling techniques, and model training.

RESEARCH & PROFESSIONAL EXPERIENCES

Hong Kong Baptist University (BNU-HKBU UIC) Jun 2023 - Sep 2023
Research Assistant @ Faculty of Business and Management
Advised by Prof. May Ying WANG.

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

Leveraged advanced data analytics and visualization techniques, including Spark SQL, Python, R, and Tableau, to analyze key business indicators, and create 10+ interactive dashboards for top seller account management, resulting in optimized advertising strategies and improved sales performance (∼20%) across multiple product categories on eBay.

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

Managed and optimized 3 critical information systems through data rule encoding, organizational structure management, and document integration, while coordinating cross-functional testing of sales processes and configuring product parameters, resulting in the resolution of 100+ issues and enhanced system accuracy and robustness.

REFERENCES

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

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