# Pengqi "Eric" WANG

### Education

## The Hong Kong University of Science and Technology

Sep 2023 - Jul 2025

M. Phil. in Computational Media and Arts, Guangzhou campus

(Expected)

- o GPA: 4.06 / 4.3
- o Cognate: Human Computer Interaction
- o Thesis Topic: Enhancing Children's Reading Engagement through Multi-Modal Interactive AI Agent
- o Advisor: Prof. Mingming FAN (Primary), Prof. Muzhi ZHOU (Co)
- Awards: Postgraduate Studentship (~1,426 USD per month); Postgrad. 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%)
- o Thesis Topic: Comp. Study of Tree-Based & Transformer-based Models for Fake Rev. Detection on Yelp
- o Advisor: Prof. May Ying WANG (Academic), Prof. Don Junyi CHAI (Final Year Project, Mentor)
- o Awards: First-Class Scholarship (2019-2020), Second-Class Scholarship (2020-2021, 2021-2022, 2022-2023)

# Research Interest

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

## **Publications**

- [1] **Pengqi Wang**, Mingqing Xu, Li Feng and Mingming Fan\*. 2025. Understanding and Facilitating Learning with AI in Multi-Source Information Environment for College Students. Submitted to *ACM CHI Conf. on Human Factors in Computing Systems (CHI '25)*. Under Round 2 Review (R&R). paper
- [2] Qianjie Wei, Jingling Zhang, **Pengqi Wang**, Xiaofu Jin and Mingming Fan\*. 2024. Augmented Library: Toward Enriching Physical Library Experience Using HMD-Based Augmented Reality. In *Proc. 17th Int. Symp. Visual Information Communication and Interaction (VINCI '24)*. arxiv
- [3] May Ying Wang, Bingjie Deng\* and **Pengqi Wang**\*. 2024. From Hallucination to Trust: Leveraging Chain-of-Thoughts and Empathy in LLM-Empowered Agent. In *Proc. 24th Int. Conf. Electronic Business (ICEB* '24'). paper
- [4] May Ying Wang, Na Jiang, **Pengqi Wang** and Bingqing Xiong. 2024. Enhancing Well-Being and Reliance on AIGC-Powered Digital Assistants. In 2024 UNNC-CNAIS Paper Development Workshop.
- [5] May Ying Wang and **Pengqi Wang\***. 2023. Decoding Business Applications of Generative AI: A Bibliometric Analysis and Text Mining Approach. In *Proc. 23rd Int. Conf. Electronic Business (ICEB '23')*. paper
- [6] Pengqi Wang, Yue Lin and Junyi Chai\*. 2023. 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 '23). paper
- [7] **Pengqi Wang**, Mengli Yu and Yadong Liu\*. 2022. 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 '22)*. paper

### Selected Research Experiences

## Research Student

Sep 2023 - Present

 ${\it Accessible~\& Pervasive~User~EXperience~(APEX)~Lab},~{\it HKUST~(Supervised~by~Prof.~Mingming~FAN)}$ 

- Understanding and Facilitating Learning with AI in Multi-Source Information Environment for College Students
  - Led qualitative research on AI-powered tools for college students. The study focused on multi-source information environments. It revealed a framework of students' information behaviors and provided design implications to enhance 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.

### o Augmented Library: Toward Enriching Physical Library Experience Using HMD-Based AR

Designed and developed an HMD-based AR system, Augmented Library. This system aims to revitalize
physical library experiences for college students. Integrated interactive digital features to enhance book
discovery and foster community engagement within the library setting.

# • Exploring the Design of AI-mediated Emotion Communication for Deaf and Hard of Hearing People in Online Meetings

- Designed, developed, and implemented an emotion support system for Deaf and Hard of Hearing (DHH) participants in online meetings. The system detects, interprets, and visualizes emotional states in real-time, addressing unique emotional challenges faced by DHH users in virtual environments.
- Collaborated with the DHH community for user evaluations, assessing the system's effectiveness in improving participation and reducing social isolation.

# • Investigating the Role of AI in the Team Synchronous-Asynchronous Collaboration Loop

 Proposed and developed an AI-assisted collaborative ideation system to enhance team collaboration across synchronous and asynchronous modes. Focused 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.

Research Assistant

May 2023 - Sep 2023

Faculty of Business and Management, HKBU-UIC (Supervised by Prof. May Ying WANG)

### o From Hallucination to Trust: Leveraging CoT and Empathy in LLM-Empowered Agent

- Investigated the enhancement of user experience with LLMs in critical scenarios, such as hallucination and service failure, through Chain-of-Thought reasoning and empathy expressions. Contributed to developing trustworthy and user-centric AI systems.
- Developed an AI-powered conversational agent based on the LobeHub framework for a field study experiment. Prepared the questionnaire and authored the manuscript.

### o Enhancing Well-Being and Reliance on AIGC-Powered Digital Assistants

- Investigated the impact of explainability signals and dialogue strategies on user well-being and reliance on AIGC-powered digital assistants. Aimed to refine their design and enhance user satisfaction.
- Designed experiments and developed systems. Presented the working paper at the 2024 UNNC-CNAIS
  Paper Development Workshop, gathering valuable insights from conference mentor Atreyi Kankanhalli
  for future research directions.

# **Professional Experiences**

#### Data Analyst Intern

Jul 2022 - Nov 2022

eBay Inc. @ Top Seller Account Management Team

Analyzed and visualized data using **SQL**, **Python**, **R**, **Excel VBA**, and **Tableau** to create interactive dashboards that trended key business indicators, supported data analysis for marketing growth by 40%, and enhanced decision-making for 1k+ top sellers.

#### Information Systems Intern

Jun 2022 - Jul 2022

Kingdee International Software Group @ Kingdee China Shared Service Center

Maintained and optimized major info. sys. (ERP, CRM, KBC), processed over 100 issues by providing remote **SQL** and **Python** support, and enhanced the efficiency of Intelligent Approval System by 20%.

## Skills

- English Proficiency: TOEFL iBT 102, (Best Score: 106): W 27 (27), R 30 (30), L 22 (26), S 23 (23).
- **Programming & Quantitative Analysis:** Python (NumPy, Pandas, Scikit-learn, PyTorch, etc.), SQL, R, C/C++, JavaScript, HTML/CSS, LaTeX.
- o Developer Tools: Docker, AWS (EC2, Lightsail, Bedrock, etc.), Azure, Git, Linux.
- Qualitative Analysis: Inductive and deductive analysis, thematic analysis, grounded theory; Atlas.ti, NVivo, MAXQDA.
- UX/UI & Creativity: Figma, Adobe Kit (Photoshop, Illustrator, Premiere Pro).
- Research Methodologies: Focus group, participatory design, field study, literature review.
- o Other: Large Language Models (LLMs), GenAI, Facial Emotional Recognition (FER), Chatbot, VR/AR/XR.