

# Yuting PENG

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## Education

Chinese University of Hong Kong (CUHK)

Hong Kong, China

Master of Arts in Global Communication

09/2024-present

Sichuan University (SCU)

Chengdu, China

Bachelor of Arts in Network and New Media

09/2020-06/2024

• GPA: 3.79/4

• Core Courses: Multimedia Technology and Computer (93), Users and Data Analysis (90), Digital Aesthetics (93), Fundamentals of Media Effects (95)

• Research Profile:

Data-driven researcher specializing in human-centered communication technologies and user experience. Skilled in experimental methodologies and quantitative analytics (Python, R), with demonstrated expertise in user engagement modeling, health informatics, AI-assisted diagnostics, and digital advertising. Proven track record across interdisciplinary projects, effectively translating complex behavioral insights into practical solutions. Currently involved in 5+ cross-disciplinary studies, with 3 manuscripts under peer review.

• Research Interests:

User Experience & Engagement | Health Communication & Informatics | AI & Human Interaction | Experimental & Quantitative Methods | Media Analytics

## Research Experience

### Characterizing and Predicting User Engagement on ReelShort Platform

Research Assistant for Dr. Frances Lu Yang | School of Journalism and Communication, CUHK

12/2024-Present

- Collected and analyzed content metadata from the short drama streaming platform *ReelShort*, focusing on emotionally charged scenes such as violence and intimacy, to identify patterns influencing viewer engagement.
- Conducted sentiment and topic analysis (VADER & Twitter-LDA) to investigate how themes and emotional dynamics correlate with audience likes and saves.
- Explored annual content shifts and their impacts on viewer interaction through targeted analysis of freely accessible episodes containing explicit content.

[Web Scraping] [Sentiment Analysis] [Topic Modeling] [Audience Behavior] [Content Analytics]

### Exploring Technology Acceptance and Usage Preferences of Electronic Health Records (EHR) in China

Research Assistant for Prof. Kang Li & Rong Yin | Pittsburgh Institute of SCU and West China Hospital

04/2024-Present

#### Subproject 1: Understanding User Needs for EHR Systems in China

- Conducted site visits to hospitals in Chengdu, observing patient interactions with existing EHR systems in real-life settings. Documented user behaviors, identified common usability challenges, and recorded emotional responses such as frustration or confusion.
- Organized several focus groups inspired by the Mayo Clinic's EHR design, presenting a prototype tailored to Chinese user preferences. Uncovered key barriers such as navigation difficulties, data privacy concerns, and low trust in digital platforms.
- Designed a comprehensive survey grounded in the UTAUT3 model, distributed it online, and collected over 2,000 responses. Quantitatively analyzed user attitudes and preferences, providing actionable insights for system development.

#### Subproject 2: Developing and Evaluating a Tailored EHR System

- Collaborated with engineering students to develop a functional EHR system based on insights from the research. Integrated an AI assistant to simplify navigation and reduce barriers for older or less tech-savvy users.
- Designed and executed a controlled between-subjects experiment, using EyeLink 1000 Plus eye-tracking and EEG technologies to assess visual attention patterns and cognitive load during system usage.

[User Research] [Field Observation] [Focus Group] [Survey Design & Analysis] [AI Integration] [Eye-Tracking] [EEG Analysis] [Usability Testing] [Experimental Design]

**Comparing ChatGPT and Gemini in Assisting IBD Diagnosis Based on Symptoms and Non-invasive Examination Results**

Research Assistant for Prof. Kang Li & Rong Yin | Pittsburgh Institute of SCU and West China Hospital 08/2024-Present

- Collaborated with clinical experts and utilized non-invasive examination data from West China Hospital’s database to define inflammatory bowel disease (IBD) symptoms and diagnostic criteria, generating 9 clinical prompt combinations (mild, moderate, severe symptoms with/without lab results), and systematically queried ChatGPT-4o and Google Gemini, producing 540 diagnostic responses for comparative evaluation.
- Established evaluation metrics,utilizing Semantic Textual Similarity (STS) via SEMSCORE embeddings and Intra-Class Correlation (ICC) to rigorously assess models' accuracy, contextualization, diagnostic reliability, transparency, and consistency against clinically verified standard answers.

[Prompt Engineering] [Semantic Textual Similarity] [Intra-Class Correlation]

**Intelligent Allocation of Medical Resources in Internet Hospitals Balancing Equity and Efficiency**

Guided by Prof. Li Luo |West China Hospital 09/2023-Present

- Supported by the National Natural Science Foundation of China, this project applies management science and machine learning to innovate and measure equity and efficiency in Internet hospital services, aiming to optimize medical resource management and improve public Internet hospital operations.
- Collected and analyzed data on patient arrivals, discharges, and treatment times.

[Resource Optimization] [Management Science] [Healthcare Equity Analysis] [Operational Efficiency]

**Investigating the Impact of Video Pace, Pop-up Ad Relevance, and Ad Color on Attention and Memory in Long Video Playback: An Eye-tracking Experiment**

Guided by Prof. Yao Song | Digital Convergence Laboratory of Chinese Cultural Inheritance 01/2024-06/2024

- Prepared 3 (video pace) × 2 (ad relevance) × 2 (color brightness) experimental stimuli featuring pop-up ads.
- Applied mixed-method analysis, combining quantitative measures (eye-tracking fixation metrics through Tobii spectrum) and qualitative surveys (impression ratings), resulting in a dataset of 528 observations, to systematically evaluate cognitive load and visual attention theories in ad-context congruence scenarios.
- Performed statistical analyses including ANOVA, semantic textual similarity, and interaction effect assessments to identify optimal ad design tactics—demonstrating significantly enhanced viewer engagement with highly relevant, brightly colored ads in slow-paced video contexts.

[Eye-Tracking] [Experimental Design] [ANOVA]

**Choices and Solutions for the Fertility Dilemma in China (Project for China Data Journalism Competition)**

Guided by Prof. Zhongbo Jiang | College of Literature and News of SCU 07/2022-09/2022

- Conducted in-depth interviews with three mothers from diverse socioeconomic backgrounds, authoring a non-fiction report exploring the fertility challenges faced by women in contemporary Chinese society.
- Visualized and analyzed fertility data across Chinese provinces, comparing regional fertility rates, policy impacts, and international differences between China and developed countries using Tableau and Python.
- Designed and developed an interactive JavaScript-based game embedded in the project webpage, enabling users to dynamically calculate child-rearing costs under varying economic conditions.

[Data Visualization] [Interactive Web Design] [JavaScript] [Interviewing & Reporting] [Tableau]

**Internships**

**Meituan** Chengdu, China

Intern Advertising and Product Manager 06/2023-01/2024

- Launched the "Taste Tester Mini Program" from ideation to deployment; designed and managed dual-end (B2B & B2C) product features, resulting in an 18% increase in merchants' average daily orders across tier-1 and tier-2 cities in China.
- Built and optimized a comprehensive data dashboard for daily monitoring and iterative improvement; conducted

- regular data-driven analysis and collaborated closely with customer service teams to refine product functionalities and enhance user experience.
- Directed promotional campaigns, collaborated with KOLs, and co-created promotional video scripts; additionally, improved customer support efficiency by developing and iterating an intelligent customer service chatbot system.
  - Planned advertising strategies for flowers on Chinese Valentine's Day. The ads reached **15.83 million people**, appealed **14,798 orders**, and produced an income of **2.8888 million yuan**.
  - Explored innovative advertising products, such as the integration of information-stream ads in Qimao's free-reading platform and contextual ad placements with iFlytek's keyboard input method, involving user segmentation and targeted ad delivery.
- [Product Design] [Data Dashboard] [KOL Collaboration] [User Experience Optimization] [Chatbot Development]  
[Advertising Strategy] [Data Analysis]

## Publication and Working Papers

- **Peng, Y.**, Yin, R. Understanding User Adoption of Electronic Health Records Patient Portals and Insights from the UTAUT3 Model: A Survey study. *Journal of the American Medical Informatics Association*. (Manuscript under review)
- Qin, H., **Peng, Y.**, & Fang, Y. Optimizing Medical Resource Allocation and Patient Admission Management Using Deep Q-Networks During the Pandemic. *Operations Management in Healthcare Systems*. (Manuscript under review)
- **Peng, Y.** Optimizing Pop-Up Advertisements to Enhance Viewer Attention and Impressions: A Comprehensive Eye-Tracking Study Reveals Effective Strategies for Ad Design on Long Video Platforms. *Journal of Advertising Research*. (Manuscript under review)
- Song, Y., **Peng, Y.**, Chen, Q., & Ou, S. How to Make Successful Shorts? The Effect of Exaggeration and Virtuality on View Interaction in Augmented Reality Filter. *Computers in Human Behavior*. (Manuscript under review)
- **Peng, Y.**, Yin, R. Comparing AI-Enhanced and Standard EHR Interfaces: Eye-Tracking and EEG-Based Usability Analysis (Working paper)
- **Peng, Y.**, Yin, R. Comparison of the performance of ChatGPT and Gemini in assisting IBD diagnosis based on symptoms and non-invasive test results (Working paper)
- **Peng, Y.**, Ou, S., Li, Y., & Lu, Q. (2023). Comparative Study of Mobile Application Privacy Policies: Textual Analysis of Privacy Policies of 15 China Applications. Full paper accepted by Yangtze River Delta Graduate Student Academic Forum, Hangzhou.

## Honors & Awards

SCU 1st Class Scholarship	09/2022
SCU 2nd Class Scholarship	09/2021,09/2023
First Prize, SCU Undergraduates Extracurricular Academic Science and Technology Competition	11/2022

## Leadership & Extracurricular

- President in SCU Unilever Club** 09/2022-06/2024
  - Organized and hosted a Unilever Metaverse Online Event, engaging over 2,000 participants, showcasing interactive career and product experiences. Contributed to the SCU Unilever Club achieving a top-10 global ranking in campus recruitment among all Unilever university clubs.
- Publicity Group Leader in SCU Mental Health Education Center** 07/2022-05/2024
  - Assisted a senior counselor in designing and implementing mental health campaigns, including workshops on stress management and peer support training, benefiting over 500 students. Managed a team of 15 to produce multimedia content, resulting in a 33% increase in official WeChat account readership compared to the previous year.

## Skills

- **Programming Skills:** SQL, Java, JavaScript, PHP, html, Python, R.
- **Technical Skills:** Photoshop, Adobe Premiere; Sketch, MoDao, Android Studio, MS Office (Word, Excel, PowerPoint, Access).