

Xiaoyue (Helen) Yu

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EDUCATION

University of Pittsburgh – B.S. in Information Science (GPA: 4.0/4.0) Aug 2025 – Expected Apr 2027

- Relevant Coursework: Data Analysis, Machine Learning, Human-Computer Interaction, Database Management

Sichuan University – B.E. in Industrial Engineering (GPA: 3.83/4.0)

Sep 2023 – Jun 2025

- Relevant Coursework: Operations Research, Human Factors Engineering, Productivity Analysis, Information Systems

TECHNICAL SKILLS

Languages: Python, Java, SQL, HTML/CSS, C#, \LaTeX

Tools: Flask, Git, Unity

Methods: Statistical Analysis, Qualitative Coding, User Study Design

SELECTED PROJECTS

The Playable Archive – Social Virtual Museum Platform

Oct 2025 – Present

- Contributed to a cross-institutional collaboration among the University of Pittsburgh, Carnegie Museum of Art, and the Hill District community, building a virtual world platform to explore an archive of over 60,000 historical photographs.
- Conducted user interviews and user research, collected feedback on platform features and interaction experience, performed qualitative coding to inform product iteration.

The Anxiety Time Machine – Web-based Emotional Support Platform

Feb 2026

- Collaborated with two teammates to build a full-stack web app from scratch: React.js for a multi-page frontend, Python Flask for RESTful APIs, and SQLite for a unified data model supporting multi-type emotional data storage and retrieval.
- Integrated Gemini API to deliver cross-age emotional pattern analysis; implemented core features including user auth, emotion categorization, personal timeline, and a statistics dashboard covering the full user flow.
- Won **2nd Place** at Pitt's She Innovates 2026, validating the product concept with target users.

RELEVANT EXPERIENCE

Research Intern – McLearn Lab, HCI Institute, Carnegie Mellon University

Mar 2026 – Present

- Gained familiarity with the overall architecture and data pipeline design of Intelligent Tutoring Systems; contributed to early-stage research on integrating LLMs for personalized feedback generation.

Teaching Assistant – IE-1081 Operations Research, University of Pittsburgh

Jan 2026 – Apr 2026

- Selected through the Allias/Holzman teaching and research program.
- Graded assignments, quizzes, and exams covering core topics including linear programming, integer programming, network optimization, queueing theory, and dynamic programming; provided rubric-aligned written feedback.

Research Intern – Pervasive HCI Lab, Tsinghua University (Remote)

Dec 2025 – Present

- Developed and maintained a Python-based backend prototype, configured deployment environments, and built data integration pipelines connecting gaze-tracking data with real-time LLM interactions.

Research Assistant – Learning Technologies Lab, University of Pittsburgh

Aug 2025 – Present

- Participated in user interviews, conducted thematic coding and qualitative analysis on interview data to identify user behavior patterns and needs.

Research Assistant – Human-centered AI Lab (HAIL), Sichuan University

Oct 2023 – Jun 2025

- Led the foundational research phase and managed end-to-end user study operations, including participant screening and adherence to strict experimental protocols.
- Streamlined data collection and analysis pipelines for multimodal behavioral experiments (fNIRS), generating insights on user trust dynamics (published at **HCI International 2025**).

PUBLICATIONS

[1] J. Yin, X. Yu, J. Pan, G. Qian. "Blood Biomarker-Based Machine Learning Triaging Model for Predicting the Risk of Cognitive Decline Progression from Mild Cognitive Impairment." *IEEE DLCV 2025*.

DOI: 10.1109/DLCV65218.2025.11088776

[2] Y. Wu, D. Huang, X. Yu, Y. Wang, W. Qin, X. Tan. "Drivers' Intervention Tendency and Trust Dynamics During Interactions with Automated Vehicles in Potential Hazard Scenarios." *HCI International 2025 Posters*.

HONORS & AWARDS

- **Member, NCWIT Aspirations in Computing (AiC) Community** 2026 – Present
- **Selected Member, Friends of McNair Program**, University of Pittsburgh 2025 – Present
- **Dean’s List**, University of Pittsburgh 2025
- **Dean’s List (Top 10%)**, Sichuan University Pittsburgh Institute 2025
- **National Scholarship**, Sichuan University 2024, 2025
- **Outstanding Student Award**, Sichuan University 2024, 2025