ZI QI LIOW

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Research Interests

Human-centered AI for health & well-being · Multimodal interfaces · Participatory design for AI

Education

Barnard College, Columbia University — New York, NY
B.A. in Neuroscience & Behavior, *summa cum laude* (4.05/4.00) — Sep 2024 – May 2026

- Senior Thesis: "Interactive Audio-Haptic Perception for Blind and Low-Vision Individuals" – Advisors: Brian A. Smith and Nikolaus Kriegeskorte
- Relevant coursework: Human-Computer Interaction, Topics in Neuroethics, Fundamentals of Computational Neuroscience Models, Statistics, Columbia Business School: Future of Work, Social Psychology, Independent Research

University of Toronto (UofT) — Toronto, ON
B.S. in Neuroscience & Psychology — Sep 2022 – Jun 2024

Research Experience

The Trust Collaboratory, Columbia University — Aug 2026 – Present
Research Fellow
PI: Cristian Capotescu

- Lead participatory research for CitizenAI ($1.5M **NSF**-funded) to understand public perceptions of conversational AI
- Host monthly workshops (50+ participants) and translate findings into chatbot design; co-drafted a grant proposal

Computer-Enabled Abilities Lab, Columbia University — Sep 2025 – Present
Full-Time Researcher; Student Researcher (Sep 2025 – May 2026)
PIs: Brian A. Smith, Kathleen McKeown, Nikolaus Kriegeskorte, Tatiana A. Emmanouil, Carl Vondrick

- Co-leading the design and prototyping of a multi-modal AI system (audio, natural language, haptic) to enhance artwork accessibility for blind users; **NSF Artificial and Natural Intelligence Institute (ARNI) – Flagship project**
- Distilled HCI literature and behavioral science theory into system design principles, iterated through co-design sessions
- Designed and ran studies with blind users to evaluate how the order of information in alt text impacts cognitive load

Visual Inference Lab, Zuckerman Institute, Columbia University — Oct 2024 – Present
Part-Time Researcher; Student Researcher (Oct 2024 – May 2026)
PI: Nikolaus Kriegeskorte

- Co-led a 55-page white paper, pitching algorithmic and UI features to improve social media for democratic discourse
- Analyzed visual decoding in primate neural datasets using Python, evaluating the model for robust performance
- Translating clinical research into stimulus design requirements to build a generative AI pipeline for cognitive games

Awards & Honors

Neuroscience Department Honors Awardee, Barnard College — May 2026
Awarded by faculty to top 20% of department graduates for distinguished academic and research achievement.

Summer Research Institute (SRI) Scholar, Barnard College — May 2025
Awarded $6,000 to learn and conduct neural decoding research at the Visual Inference Lab (Advisor: Hossein Adeli).

Top 15% Finalist, Columbia Business School AI Impact Competition — Apr 2025
Pitched *Sori*, an AI storybook app for pediatric speech therapy, to investors; sole undergraduate finalist (53 teams).

1st Place, Global Learning Case Competition — Feb 2024
Pitched *ModU*, an AI digital content modulation plug-in for clinician-guided PTSD exposure therapy (72 teams globally).

Publications, Manuscripts, & Posters

[1] Alshomary, M., **Liow, Zi Qi**, Gong, U., & Feng, P. (2026). "Optimizing and Evaluating Spatial Language in Narratives through Reordering Scene Elements." *In preparation for ACL 2027.*

[2] Cheng, F., Farzmahdi, A., Feng, P., Garzón Gupta, K., Jerde, T.*, Kriegeskorte, N.*, **Liow, Zi Qi***, Maruya, A., Smith, S., Stinson, P., & Taylor, J. (2026). *Improving social media for democratic discourse.* Preprint, arXiv:2610.10816.
(Corresponding authors; authors listed in alphabetical order)*

[3] Casariego, A.†, Housein, E. S.†, & **Liow, Zi Qi**† (2026). "Play, Pause, Recover: Comparing In-World Micro-Breaks and Dynamic Difficulty Adjustment for Achieving Sustainable Engagement in Online Puzzle Games." *Manuscript in preparation for CHI 2027 (Posters). (†Equal contribution)*

[4] **Liow, Zi Qi**, Limpijankit, M., Alshomary, M., Burgos, E., Saxena, A., Phukan, B., Feng, P., Guzman, I., McKeown, K., Emmanouil, T. A., Kriegeskorte, N., & Smith, B. A. (2026). "Interactive Audio-Haptic Perception for Blind and Low-Vision Users." *Poster presented at the National Science Foundation (NSF) Site Visit*, New York, NY.

[5] **Liow, Zi Qi**, Crevecoeur, M., Zhou, M., Teng, Y., Liu, Q., Wang, Y., Li, C., Adeli, H., & Kriegeskorte, N. (2025). "Neural Encoding of Visual Stimuli in the Primate Brain." *Poster presented at the Columbia University Encephalon Undergraduate Research Symposium*, New York, NY.

Industry & Applied Research Experience

PanopticAI, Hong Kong SAR — Jun 2024 – Aug 2024
Product Development Intern

- Translated clinical and engineering needs into design requirements and prototypes for an AI health monitoring app

Ernst & Young Parthenon (EY-P), Hong Kong SAR — Jul 2023 – Aug 2023
Strategy & Transactions Intern, AI Research

- Evaluated the opportunities and risks of applying generative AI in healthcare; presented synthesized insights to leadership

Prenetics (NASDAQ: PRE), Hong Kong SAR — Jun 2023
Product Management Intern

- Led 30+ user interviews on how patients interpret genetic health reports; synthesized themes to guide prototype design

Leadership & Service

CitizenAI Workshop Series — Aug 2026 – Present
Co-organizer

- Co-host monthly workshops on human-AI interaction; develop topics and facilitate discussion on AI values and guardrails

Columbia Grey Matters Journal — Oct 2024 – May 2026
Generative Writer

- Wrote and published science communication articles to make neuroscience research more inclusive for public audiences

UofT Neuroscience Association of Undergraduate Students — Sep 2023 – Jun 2024
Sophomore Class Representative

- Elected as the liaison between faculty and 250+ students, synthesizing student feedback into concrete academic initiatives

UofT Psychology Students Association — Sep 2023 – Jun 2024
Conference Committee Member

- Elected as 1 of 4 students to lead the annual research conference (organized 100+ attendees and 7 speakers)

Additional Information

HCI Research & Design Skills: Mixed-methods research · Human-subject study design · Usability testing · User surveys · Qualitative thematic analysis · Qualitative coding · Figma (UI/UX) prototyping · Wireframing · Participatory design

Technical Skills: Python (ML/Data Visualization) · HTML · CSS · Git · MATLAB · Unity

Languages: English (Native) · Mandarin Chinese (Native)