KEXIN QUAN

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Specialization in Machine Learning & Neural Computation

RESEARCH INTEREST

My research envisions more collaborative and socially intelligent interactions between humans and AI, aiming to design systems that augment human sensemaking and agency by distributing cognition across people and intelligent agents in complex, information-rich environments.

EDUCATION

Ph.D. in progress, Information Sciences University of Illinois, Urbana-Champaign	2023-2028
M.S. Electrical & Computer Eng University of California, San Diego Machine Learning and Data Science	2021-2023
B.S. Cognitive Science University of California, San Diego	2017-2021

PUBLICATIONS

- [1] **K. Quan**, D. Albassam[†], M. Wu[†], Z. Ding, J. Chin. Towards AI as Colleagues: Multi-Agent System Improves Structured Professional Ideation. *In Proceedings of the 2026 CHI Conference on Human Factors in Computing Systems (CHI '26). (Under review)*
- [2] M. Wu, **K. Quan**, W. Liu, M. Yao, J. Chin. "Pragmatic Tools or Empowering Friends?" Discovering and Co-Designing Personality-Aligned AI Writing Companions. *In Proceedings of the 2026 CHI Conference on Human Factors in Computing Systems (CHI '26). (Under review)*
- [3] M. Bak, **K. Quan**, T. Tomaszewski, J. Chin. Can Conversational AI Counsel for Change? A Theory-Driven Approach to Supporting Dietary Intentions in Ambivalent Individuals. *In Proceedings of the 2026 CHI Conference on Human Factors in Computing Systems (CHI '26). (Under review)*
- [4] Quan, K., & Chin, J. (under review). Optimizing decision-making with SERA: The role of gist and verbatim summaries in information-overload scenarios. *Computers in Human Behavior*.
- [5] **K. Quan**, P.Ramakrishnan, J. Chin. Can AI Take a Joke—Or Make One? A Study of Humor Generation and Recognition in LLMs. *In Adjunct Proceedings of the 2025 Conference on Creativity and Cognition (C&C'25), Online, 2025.*
- [6] M. Wu, K. Quan, W. Liu, M. Yao, J. Chin. Incorporating Personality into AI Writing Companions: Mapping the Design Space. In Adjunct Proceedings of the CHI Conference on Human Factors in Computing Systems Extended Abstracts (CHI EA '25). ACM. Late-Breaking Work.
- [7] Z. Huang, **K. Quan**, J. Chan, S. MacNeil. CausalMapper: Challenging designers to think in systems with Causal Maps and Large Language Model. *In Adjunct Proceedings of the 15th Conference on Creativity and Cognition (C&C'23), Online*, 2023.
- [8] Q. Yang, Y. Hao[†], **K. Quan**[†], S. Yang[†], Y. Zhao[†], V. Kuleshov, F. Wang. 2023. Harnessing Biomedical Literature to Calibrate Clinicians' Trust in AI Decision Support Systems. *In Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (CHI'23)*.
- [9] S. MacNeil, Z. Ding, **K. Quan**, T. J. Parashos, Y. Sun, S. P. Dow. Creative Work: Helping Novices Frame Better Problems through Interactive Scaffolding. *In Proceedings of the 13th Conference on Creativity and Cognition (C&C'21), Online, 2021.*
- [10] S. MacNeil, Z. Ding, K. Quan, Z. Huang, K. Chen, S. P. Dow. ProbMap: Automatically Constructing Design Galleries through Feature Extraction and Semantic Clustering. In Adjunct Proceedings of the 2021 Annual ACM Symposium on User Interface Software and Technology (UIST'21 Demo), Online, 2021.

[†]Co-second authors with equal contribution.

RESEARCH EXPERIENCE

Research Assistant, Funded by NIDILRR

Sep 2024–present

Supervised by Prof. Chung-yi Chiu, ChengXiang Zhai, and Jessie Chin

- Led the design and development an agentic conversational framework grounded in multi-agent orchestration and cognitive architectures to empower users in managing health behaviors and building long-term self-efficacy.
- Designed personalized, adaptive dialogue flows that draw on motivational stages and theory-driven strategies to deliver real-time, user-centered support. Built empathetic interaction experiences with dynamic, multi-voiced responses that adapt to user states and preferences.

Research Assistant, UIUC ACTION Lab

July 2023-present

Supervised by Prof. Jessie Chin

- Investigate how humans and AI agents jointly construct, distribute, and regulate cognition across ideation and decision processes, focusing on how feedback, representation, and social framing shape adaptive reasoning and shared understanding.
- Led SERA, a self-regulatory decision-making assistant grounded in Fuzzy-Trace Theory that examines how gist- and verbatim-based AI feedback influence users' information sampling and confidence [4], and MultiColleagues, a multi-agent ideation platform that leverages role-based AI collaboration to study distributed creativity and collective sense-making [1].

Research Assistant, Temple HCI Lab

Mar 2022–Sep 2023

Supervised by Prof. Stephen MacNeil

- Investigated how designers construct and navigate conceptual representations to support systems thinking and creative problem-solving across complex design contexts.
- Designed and evaluated *CausalMapper*, an LLM-enhanced web-based creativity support tool that scaffolds causal reasoning and exploration, leading to a C&C '23 Demo paper [7].

Visiting Research Intern, Cornell DesignAI Group

Mar 2022–Sep 2022

Supervised by Prof. Qian Yang

- Developed a clinical decision-support tool that integrates biomedical literature with AI-recommended treatments based on patient symptoms, aiming to calibrate clinicians' trust in AI suggestions.
- Conducted iterative prototyping and evaluated designs through clinician interviews, contributing the findings to a CHI '23 full paper as a co-second author [8].

Research Assistant, UCSD Design Lab

Apr 2020-Aug 2021

Supervised by Prof. Steven Dow and Prof. Stephen MacNeil

• Explored computational scaffolding for novice designers by building interactive creativity-support systems that automatically clustered and visualized user-generated problems, advanced understanding of design guidance mechanisms and resulted in C&C'21 [9] and UIST'21 [10] papers.

Visiting Research Assistant, Tsinghua University, The Future Lab Supervised by Prof. Yingqing Xu

July-Oct 2019

• Investigated how emotion-sensitive conversational agents influence users' emotional and behavioral responses through mixed-method analysis, contributing to a CHI EA'21 publication.

Profession Experience

PROFESSIONAL Data Analyst Intern, AXOS Bank, San Diego, CA

May-Aug 2021

• Built automated data pipelines and visualization dashboards using SQL, Python, and Excel to streamline financial monitoring, cutting manual processing time by 6 percent and enabling data-driven decisions that raised annual revenue by \$23 K.

SKILLS

Programming Languages: Python, R, Javascript, LATEX, MATLAB, SQL, Java

Machine Learning&NLP: pyTorch, TensorFlow, scikitlearn, NLTK, OpenAI, pandas, spaCy, TextBlob

Visualization Tools: Matplotlib, Seaborn, ggplot2, Plotly, Tableau, Excel **Fullstack:** Git, React.js, Flask, HTML, CSS, Firebase, Figma, Miro, Heroku

MENTORSHIP	Mentored Students, UIUC	2024-now
	 Pavithra Ramakrishnan: Undergraduate Research Assistant 	
	Anjali Ramesh: Undergraduate Research Assistant	
	Achintya Sanjay: Undergraduate CS student	
TEACHING EXPERIENCE	Teaching Assistant, UIUC	2024
	 IS504: Sociotechnical Information Systems (class size: 100) Undergrad Teaching Assistant, UCSD COGS189: Brain Computer Interfaces (class size: 50) 	2020–2021
	• COGS14A: Introduction to Research Methods (class size: 50)	
ACADEMIC	Program Committee Member	
SERVICE	ACM Creativity & Cognition (C&C), Publication Chair	2026
	Reviewer	
	ACM Creativity & Cognition (C&C)	2025
	ACM CHI	2024, 2025, 2026
	San Diego Design Workshop (SDDW), Organizer	2021
	Design for San Diego (D4SD) Community Design Jam, Coordinator	2020