

Ray-Yuan (Ray) Chung

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A human-centered AI researcher with a background in behavioral science and health informatics

EDUCATION

University of Washington, Seattle, WA 2023–2027 (anticipated)
Ph.D. in Biomedical and Health Informatics, Concentration: HCI and AI/ML
University of Michigan, Ann Arbor, MI 2018–2020
M.P.H. in Nutritional Sciences and Dietetics
National Chung-Hsing University, Taichung, Taiwan 2013–2017
B.S. , Concentration: Pre-Med

RELEVANT EXPERIENCE

Unita Health, Santa Clara, CA (Remote) Sep 2024–Present
Human-AI Interaction Researcher

- Led end-to-end development of an LLM-based conversational agent for gastrointestinal health by building a RAG pipeline, incorporating prompt engineering and iterative evaluation.

University of Washington, Seattle, WA Sep 2023–Present
Graduate Researcher

- *Co-Design AI Intervention*: Led co-design workshops with kidney patients, caregivers, and clinicians to develop an AI-powered value alignment tool.
- *LLM Chatbot for Older Adults*: Developed and evaluated a chatbot with accessible features for older adults using OpenAI API and Streamlit.
- *Online Health Misinformation*: Applied mixed-effects regression and LLaMA-based text classification (few-shot + CoT prompting) to study user engagement and perception of health misinformation on YouTube.
- *Health Device Usability*: Conducted interviews and surveys with cystic fibrosis patients to evaluate the usability of an at-home lung monitoring device.
- *Video Content Filter*: Built and tested a multimodal classifier (BERT + ViT) to flag pro-eating disorder content on YouTube.

Dexcom, San Diego, CA Jun 2024–Sep 2024
User Experience Research Intern

- Conducted mixed-methods user research (TTM-informed surveys and interviews) to inform CGM product development and behavioral feature design.

Impossible Foods, Redwood City, CA May 2022–Aug 2023
Research Scientist

- Analyzed large-scale ingredient and nutrient datasets to inform product innovation.

Heali AI, Remote Mar 2021–May 2021
AI Researcher

- Curated and annotated nutrition datasets to train an AI menu scanner for personalized dietary insights.

PUBLICATIONS

- Feng Chen, Manas Satish Bedmutha, **Ray-Yuan Chung**, Janice Sabin, Wanda Pratt, Brian R Wood, Nadir Weibel, Andrea L Hartzler, Trevor Cohen. Toward Automated Detection of Biased Social Signals from the Content of Clinical Conversations. 2025. *AMIA Annual Symposium Proceedings*.
- Luna Xingyu Li, **Ray-Yuan Chung**, Feng Chen, Wenyu Zeng, Yein Jeon, Oleg Zaslavsky. Learning from Elders: Making an LLM-powered Chatbot for Retirement Communities more Accessible through User-centered Design. 2025. In *Proceedings of the CALD-AI Workshop at ASIS&T*.
- **Ray-Yuan Chung**, Feng Chen, Yein Jeon, Oleg Zaslavsky. Improve Technology and EHealth Literacy in a Retirement Community via the Use of LLM-Powered Chatbot. 2024. *Innovation in Aging*.
- Prasad P Devarshi, **Ray-Yuan Chung**, Carroll A Reider, Ryan W Grant, Susan Hazels Mitmesser. Nutrient Gaps in US Adults by Age and Gender: Vitamin A, D, E, K, C, Magnesium, Calcium, Choline and Dietary Fiber. 2020. *Journal of the Academy of Nutrition and Dietetics*.
- Carroll A Reider, **Ray-Yuan Chung**, Prasad P Devarshi, Ryan W Grant, Susan Hazels Mitmesser. Inadequacy of immune health nutrients: intakes in US adults, the 2005–2016 NHANES. 2020. *Nutrients*.

AWARDS

- Top Scholars Award, UW (2023)
- Global Scholars Award, NSF International (2018–2020)
- Maxine Moore Scholarship, UM SPH (2019)

SKILLS

Programming & Tools: Python, R, JavaScript, PyTorch, TensorFlow, Hugging Face, LangChain, Docker, Git, Tableau, RedCap

AI/ML: LLMs, Fine-tuning, Prompt Engineering, RAG, NLP, Multimodal Learning, Causal Inference, Reinforcement Learning

UX/HCI: Interviews, Focus Groups, Surveys, Usability Testing, A/B Testing, Regression Modeling, Inclusive Design, Participatory Design

Behavioral Science: Behavior Change Design, Health Behavior Theories

OTHER PROFESSIONAL EXPERIENCE

So Basic Co., Seattle, WA

Mar 2021–Aug 2023

Healthcare Product Consultant

- Led supplement ingredient research to ensure compliance with FDA and international health regulations, supporting product development and market launch.

Eating Recovery Center, Bellevue, WA

Jun 2021–Apr 2022

Clinical Dietitian

- Delivered comprehensive nutrition assessments and interventions for patients with complex eating and mental health disorders, collaborating in interdisciplinary care teams.

University of Michigan, Ann Arbor, MI

Jan 2019–Apr 2020

Graduate Researcher

- Collected and managed behavioral and physiological data in REDCap for a randomized trial on HIIT and weight management.

University of Michigan Athletics, Ann Arbor, MI
Performance Nutrition Intern

Jan 2019–Apr 2020

- Supported NCAA Division I athletes with personalized assessments, data-informed meal plans, and education to optimize performance and recovery.

Pharmavite, West Hills, CA
Research and Development Intern

Jun 2019–Aug 2019

- Analyzed NHANES dietary data to inform data-driven public health strategy and product development decisions.

TaskUs / Valve, Taipei, Taiwan
User Experience Analyst – Team Lead

Jan 2018–Jul 2018

- Led UX analysis of Steam platform usage trends, driving product insights that improved user satisfaction by 180%.

AFFILIATIONS / LICENSURES

- Registered Dietitian (ID: 86289001)
- Cert. Sports Nutrition Specialist, Taiwan Society for Sports Nutrition
- The DUB Group at University of Washington