Raymond Fok

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RESEARCH INTERESTS

My research interests lie at the intersection of **human-computer interaction** (HCI) and **natural language processing** (NLP). My work offers empirical insight into how new technologies should be developed and integrated to enhance and protect human cognition. Specifically, **I design intelligent, interactive AI-enabled systems that support and augment complex knowledge work**, from scholarly sensemaking to business decision-making.

EDUCATION

University of Washington – Seattle, WA

2019 – 2025 Ph.D., Computer Science
Advisor: Daniel Weld

2019 – 2021 M.S., Computer Science

University of Michigan – Ann Arbor, MI

2016 – 2019 B.S., Computer Science; Minor in Mathematics

PROFESSIONAL EXPERIENCE

University of Washington, Computer Science & Engineering

09/2019 – 06/2025 Graduate Research Assistant, *Lab for Human-AI Interaction*

Adobe Research

06/2023 – 09/2023 Research Intern, *Document Intelligence*
Mentors: Alexa Siu, Nedim Lipka, Tong Sun
Marco: Collection-centric information foraging with LLMs

Allen Institute for Artificial Intelligence

03/2023 – 06/2023 Research Intern, *Semantic Scholar*
Mentors: Joseph Chee Chang, Tal August, Amy Zhang, Daniel Weld
Qlarify: Bridging scholarly abstracts and papers with expandable summaries

Google Research

09/2021 – 12/2021 Research Intern, *Gboard*
Mentors: Jiawei Chen, Shumin Zhai
Multimodal decoding models for gesture typing

Allen Institute for Artificial Intelligence

06/2021 – 09/2021 Research Intern, *Semantic Scholar*
Mentors: Andrew Head, Daniel Weld, Marti Hearst
Scim: Intelligent skimming support for scientific documents

Allen Institute for Artificial Intelligence

09/2020 – 12/2020 Research Intern, *Semantic Scholar*
Mentor: Daniel Weld
Decision-theoretic models of error recovery in AI-infused UIs

Google Research

06/2020 – 09/2020 Software Engineering Intern, *Central Accessibility*
Mentors: Brinko Kobrin, Casey Burkhardt
Color picker feature in Google's Accessibility Scanner

PUBLICATIONS

*, † denote equal contribution

Peer-Reviewed Publications

P15. **Raymond Fok**, Alexa Siu, and Daniel S. Weld. Toward Living Narrative Reviews: An Empirical Study of the Processes and Challenges in Updating Survey Articles in Computing Research. CHI, 2025

P14. Benjamin Newman, Yoonjoo Lee, Aakanksha Naik, Pao Siangliulue, **Raymond Fok**, Juho Kim, Daniel S Weld, Joseph Chee Chang, and Kyle Lo. ArxivDIGESTables: Synthesizing Scientific Literature into Tables using Language Models. EMNLP, 2024

P13. **Raymond Fok**, Joseph Chee Chang, Tal August, Amy X. Zhang, and Daniel S. Weld. Qlarify: Bridging Scholarly Abstracts and Papers with Recursively Expandable Summaries. UIST, 2024

P12. **Raymond Fok**, Nedim Lipka, Tong Sun, and Alexa Siu. Marco: Supporting Business Document Workflows via Collection-Centric Information Foraging with Large Language Models. CHI, 2024

P11. **Raymond Fok** and Daniel S. Weld. In Search of Verifiability: Explanations Rarely Enable Complementary Performance in AI-Advised Decision Making. AI Magazine, 2024

P10. Kyle Lo, Joseph Chee Chang, (+51 authors incl. **Raymond Fok**), Marti A. Hearst, and Daniel S. Weld. The Semantic Reader Project: Augmenting Scholarly Documents through AI-Powered Interactive Reading Interfaces. CACM, 2024

P9. Benjamin Newman, Luca Soldaini, **Raymond Fok**, Arman Cohan, and Kyle Lo. A Controllable QA-based Framework for Decontextualization. EMNLP, 2023

P8. **Raymond Fok**, Hita Kambhamettu, Luca Soldaini, Jonathan Bragg, Kyle Lo, Marti A. Hearst, Andrew Head, and Daniel S. Weld. Scim: Intelligent Skimming Support for Scientific Papers. IUI, 2023

P7. **Raymond Fok**, Mingyuan Zhong, Anne Spencer Ross, James Fogarty, and Jacob O. Wobbrock. A Large-Scale Longitudinal Analysis of Missing Label Accessibility Failures in Android Apps. CHI, 2022

P6. Andrew Head, Kyle Lo, Dongyeop Kang, **Raymond Fok**, Sam Skjonsberg, Daniel S. Weld, and Marti A. Hearst. Augmenting Scientific Papers with Just-in-Time, Position-Sensitive Definitions of Terms and Symbols. CHI, 2021

P5. Gagan Bansal*, Tongshuang Wu*, Joyce Zhou†, **Raymond Fok**†, Besmira Nushi, Ece Kamar, Marco Tulio Ribeiro, and Daniel S. Weld. Does the Whole Exceed its Parts? The Effect of AI Explanations on Complementary Team Performance. CHI, 2021

P4. Jean Y. Song, **Raymond Fok**, Juho Kim, and Walter S. Lasecki. FourEyes: Leveraging Tool Diversity as a Means to Improve Aggregate Accuracy in Crowdsourcing. TiiS, 2019

P3. **Raymond Fok**, Harmanpreet Kaur, Skanda Palani, Martez E. Mott, and Walter S. Lasecki. Towards More Robust Speech Interactions for Deaf and Hard of Hearing Users. ASSETS, 2018

P2. Jean Y. Song, **Raymond Fok**, Alan Lundgard, Fan Yang, Juho Kim, and Walter S. Lasecki. Two Tools are Better Than One: Tool Diversity as a Means of Improving Aggregate Crowd Performance. IUI, 2018 **Best paper honorable mention**

P1. Saiganesh Swaminathan, **Raymond Fok**, Fanglin Chen, Ting-Hao (Kenneth) Huang, Irene Lin, Rohan Jadvani, Walter S. Lasecki, and Jeffrey P. Bigham. WearMail: On-the-Go Access to Information in Your Email with a Privacy-Preserving Human Computation Workflow. UIST, 2017

Workshop Papers, Posters, and Extended Abstracts

W3. **Raymond Fok** and Daniel S. Weld. What Can't Large Language Models Do? The Future of AI-Assisted Academic Writing. In2Writing Workshop @ CHI, 2023

W2. Ather Sharif, Paari Gopal, Michael Saugstad, Shiven Bhatt, **Raymond Fok**, Galen Weld, Kavi A. M. Dey, and Jon E. Froehlich. Experimental Crowd+AI Approaches to Track Accessibility Features in Sidewalk Intersections Over Time. ASSETS Posters & Demonstrations, 2021

W1. Sai Gouravajhala, Jean Y Song, Jinyeong Yim, **Raymond Fok**, Yanda Huang, Fan Yang, Kyle Wang, Yilei An, and Walter S. Lasecki. Towards Hybrid Intelligence for Robotics. CI, 2017

MEDIA COVERAGE

10/2023 Speed read: This new AI-powered tool helps researchers skim through scientific papers
Geekwire

08/2023 Bringing Scientific Papers to Life
ICDAR 2023 Keynote (*by Marti Hearst*)

05/2021 ScholarPhi: A Novel Interface for Reading Scientific Papers
University of California, Berkeley, School of Information

01/2018 Selected as finalist for CRA UG research award; two others receive honorable mention
University of Michigan, EECS

ACADEMIC SERVICE

Peer Reviewing

CHI 2021, 2022, 2024
CSCW 2022
ICMI 2021
UIST 2021, 2024
WebConf 2023

Updated March 2025