Raymond Fok

PhD Candidate
Paul G. Allen School of Computer Science & Engineering
University of Washington

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Twitter: @rayrayfok

Publication: Google Scholar | Semantic Scholar

RESEARCH INTERESTS

Human-Computer Interaction, Applications of AI for Scholarly Documents, Explainable AI

EDUCATION

University of Washington - Seattle, WA

2019 – Present Ph.D. in Computer Science

Advisor: Daniel Weld

2019 – 2021 M.S. in Computer Science

Advisors: James Fogarty, Daniel Weld

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 - Present Graduate Research Assistant, HAI Lab

Human-AI interaction, explainable AI, AI for scholarly documents

Adobe Research

06/2023 - 09/2023 Research Intern, Document Intelligence

Mentors: Alexa Siu, Nedim Lipka, Tong Sun

Marco: LLMs for sensemaking over document collections

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

University of Michigan, Computer Science & Engineering

12/2016–05/2019 Undergraduate Research Assistant, CRO+MA Lab

Hybrid intelligence systems, crowdsourcing methods, accessibility

Goldman Sachs

06/2018 – 09/2018 Technology Analyst Intern

Data analysis for privilege management

PUBLICATIONS

*, † denote equal contribution

Pre-prints

- P12. **Raymond Fok**, Joseph Chee Chang, Tal August, Amy X. Zhang, and Daniel S. Weld. Qlarify: Bridging Scholarly Abstracts and Papers with Recursively Expandable Summaries. ArXiv, Oct. 2023
- P11. **Raymond Fok** and Daniel S. Weld. In Search of Verifiability: Explanations Rarely Enable Complementary Performance in AI-Advised Decision Making. ArXiv, May 2023
- P10. Kyle Lo, Joseph Chee Chang, **Raymond Fok** (+50 authors), Marti A. Hearst, and Daniel S. Weld. The Semantic Reader Project: Augmenting Scholarly Documents through AI-Powered Interactive Reading Interfaces. ArXiv, Apr. 2023

Peer-Reviewed Publications

- 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 student 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 AND ACADEMIC 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

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

SERVICE

Reviewer

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