
Education

- Aug 2017–Present **University of Michigan, Ann Arbor, MI.**
PhD Student, Computer Science and Engineering (CSE)
Research Interests: Human-Computer Interaction, End-User Programming
Advisor: Steve Oney
- Sept 2014–June 2015 **Massachusetts Institute of Technology, Cambridge, MA.**
MEng, Electrical Engineering and Computer Science
Thesis: VideoDoc: Combining Videos and Lecture Notes for a Better Learning Experience
Advisor: Robert C. Miller
- Sept 2010–June 2014 **Massachusetts Institute of Technology, Cambridge, MA.**
SB, Computer Science and Engineering

Professional Experience

- May–September 2022 **Research Intern, Apple – Human-Centered Machine Intelligence, Seattle, WA.**
Mentors: Amanda Swearngin, Jeffrey Nichols
- May–August 2021 **Research Intern, Microsoft Research – EPIC group, Redmond, WA (Virtual).**
Mentor: Bongshin Lee
- May–August 2019 **User Interface Research Intern, Autodesk Research, Toronto, ON, Canada.**
Mentors: Fraser Anderson, Justin Matejka
- Sept 2016–July 2017 **Software Engineer, The MathWorks, Inc., Natick, MA.**
- Aug 2015–Sept 2016 **Application Support Engineer, The MathWorks, Inc., Engineering Development Group, Natick, MA.**
- Feb 2014–June 2015 **Student Researcher, MIT CSAIL, User Interface Design Group, Cambridge, MA.**
- June–Aug 2014 **Software Development Engineer Summer Intern, Microsoft Corporation, Redmond, WA.**
- May–Aug 2013 **Software Development Intern, The MathWorks, Inc., Natick, MA.**
- Summers 2009–2012 **Summer Intern, National Institutes of Health, Bethesda, MD.**

Publications

Conference Papers

- VL/HCC 2022 **Rebecca Krosnick, Steve Oney.** ParamMacros: Creating UI Automation Leveraging End-User Natural Language Parameterization. In *Proceedings of the IEEE Symposium on Visual Languages and Human-Centric Computing*. 2022.
- VL/HCC 2021 **Rebecca Krosnick, Steve Oney.** Understanding the Challenges and Needs of Programmers Writing Web Automation Scripts. In *Proceedings of the IEEE Symposium on Visual Languages and Human-Centric Computing*. 2021.
- CHI 2021 **Rebecca Krosnick, Fraser Anderson, Justin Matejka, Steve Oney, Walter S. Lasecki, Tovi Grossman, George Fitzmaurice.** Think-Aloud Computing: Supporting Rich and Low-Effort Knowledge Capture. In *Proceedings of the ACM Conference on Human Factors in Computing Systems*. 2021.

- CHI 2019 Steve Oney, **Rebecca Krosnick**, Joel Brandt, Brad Myers. Implementing Multi-Touch Gestures with Touch Groups and Cross Events. In *Proceedings of the ACM Conference on Human Factors in Computing Systems*. 2019. **Honorable Mention**.
- CSCW 2018 Sang Won Lee, **Rebecca Krosnick**, Sun Young Park, Brandon Keelean, Sach Vaidya, Stephanie D. O’Keefe, Walter S. Lasecki. Exploring Real-Time Collaboration in Crowd-Powered Systems Through a UI Design Tool. In *Proceedings of the ACM Conference on Computer-Supported Cooperative Work and Social Computing*. 2018.
- UIST 2018 Steve Oney, Alan Lundgard, **Rebecca Krosnick**, Michael Nebeling, Walter S. Lasecki. Arboretum and Arbility: Improving Web Accessibility Through a Shared Browsing Architecture. In *Proceedings of the ACM Symposium on User Interface Software and Technology*. 2018. [21% Acceptance Rate]
- VL/HCC 2018 **Rebecca Krosnick**, Sang Won Lee, Walter S. Lasecki, Steve Oney. Espresso: Building Responsive Interfaces with Keyframes. In *Proceedings of the IEEE Symposium on Visual Languages and Human-Centric Computing*. 2018. [29% Acceptance Rate]
- VMCAI 2014 Rohit Singh, Rishabh Singh, Zhilei Xu, **Rebecca Krosnick**, Armando Solar-Lezama. Modular Synthesis of Sketches Using Models. *International Conference on Verification, Model Checking and Abstract Interpretation*. 2014.

Workshop and Demo Papers

- VL/HCC 2021 **Rebecca Krosnick** and Steve Oney. Providing Feedback and UI Context to Programmers Writing Web Automation Scripts. *IEEE Symposium on Visual Languages and Human-Centric Computing, Posters and Showpieces*. 2021.
- LIVE 2020 **Rebecca Krosnick** and Steve Oney. Toward Providing Live Feedback in Web Automation IDEs. *LIVE Workshop at the ACM SIGPLAN Conference on Systems, Programming, Languages, and Applications: Software for Humanity*. 2020.

Symposia

- VL/HCC 2022 **Rebecca Krosnick**. Tools for Creating UI Automation Macros. In *Proceedings of the IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC 2022), Graduate Consortium*. 2022.
- PL+HCI 2020 **Rebecca Krosnick**. Designing Tools for Intuitive Creation, Generalization, and Maintenance of Web Macros. *PL + HCI “Swimmer” School, Doctoral Symposium*. 2020.
- VL/HCC 2018 **Rebecca Krosnick**. Creating Interactive User Interfaces by Demonstration using Crowdsourcing. In *Proceedings of the IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC 2018), Graduate Consortium*. 2018.

Teaching Experience

- Jan–April 2020 **Graduate Student Instructor - User Interface Development**, Ann Arbor, MI.
UMich EECS
- Sept–Dec 2019 **Graduate Student Instructor - Human-AI Interaction**, Ann Arbor, MI.
UMich EECS
- Sept–Dec 2014 **Teaching Assistant - Software Studio**, Cambridge, MA.
MIT EECS
- Sept–Dec 2013 **Lab Assistant - Software Construction**, Cambridge, MA.
MIT EECS
- Jan 2012 Intersession **Lab Assistant - Introduction to Python**, Cambridge, MA.
MIT EECS

Sept–Dec 2011 **Lab Assistant - Mathematics for Computer Science, Cambridge, MA.**
MIT EECS

Awards

Sept 2017–Aug 2018 **University of Michigan CSE Fellowship, Ann Arbor, MI.**

Academic Service

2018–2019, 2022 **Reviewer for Papers, ACM Conference on Human Factors in Computing Systems (CHI).**

2018, 2020–2022 **Reviewer for Papers, ACM Symposium on User Interface Software and Technology (UIST).**

2021 **Reviewer for Papers, IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC).**

2021 **Reviewer for Papers, ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW).**

2020–2021 **Reviewer for Papers, ACM Conference on Designing Interactive Systems (DIS).**

2019 **Reviewer for Papers, ACM Conference on Creativity and Cognition (C&C).**

2019–2022 **Reviewer for Late-Breaking Work, ACM Conference on Human Factors in Computing Systems (CHI).**

2021 **Reviewer for Demos and Posters, ACM Conference on Intelligent User Interfaces (IUI).**

2020 **Reviewer for Posters, IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC).**

2018 **Student Volunteer, ACM Conference on Human Factors in Computing Systems (CHI).**

Special Recognition for Outstanding Reviews, CSCW 2021, CHI 2022.

Department Service

May 2018–May 2019 **UMich ECSEL (Women in CS) Webmaster.**

September 2018 **Student panel for new PhD student orientation.**

Jan–May 2018 **UMich ECSEL (Women in CS) Social Chair.**

Sept 2017–May 2018 **UMich CSEG Intramural Sports Chair.**

Outreach and Mentoring Programs

Sept 2020–April 2022 **Mentor for MIT Undergraduate Practice Opportunities Program (UPOP).**

February 2022 **Student panel for UMich Explore Computer Science Research.**

April 2018–March 2019 **UMich Girls Encoded - Middle School CS Outreach Program.**

August 2018 **HCI presentation for UMich CS Kickstart.**

March 2018 **HCI presentation for UMich GEECS (Girls in EECS).**

Oct 2017, 2018 **UMich “Lunch and Lab with a Grad” Mentoring Program.**

2016, 2017 **Hour of Code.**

Research Mentoring

2018–2019 **Evan Parres, Undergraduate.**

2017–2018 **Kayla Wiggins, Undergraduate.**

Programming skills

Proficient in JavaScript, HTML, CSS, jQuery, Node.js, Express.js, Electron, MongoDB, Git

Familiar with React, Puppeteer, TypeScript, Webpack, speech-to-text, Dojo, Java, Python, MATLAB, Ruby on Rails, C++, C#, SQL, Perforce