

# Sarah Lim

Northwestern University, Evanston, IL, USA  
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## RESEARCH INTERESTS

Programming languages, rich type systems, human-computer interaction, computing education.

## EDUCATION

Jun 2018    **Northwestern University**, B.A. Computer Science, *summa cum laude* (3.94/4.0)  
Graduate-level coursework: Code Analysis and Transformation, Type Systems, Probabilistic Graphical Models, Graduate Algorithms, Systems Programming in Rust

## RESEARCH EXPERIENCE

Jul 2018 – Oct 2018    **Microsoft Research**, Cambridge, UK    Host: Gavin Smyth  
*Research Intern, Future of Work*

Developed and implemented algorithms for augmenting remote collaboration with machine vision. Designed and built prototype interfaces for content search.

Apr 2015 – Jun 2018    **Northwestern University**, Evanston, IL    Advisors: Haoqi Zhang, Nell O'Rourke  
*Undergraduate Researcher, Delta Lab*

Designed, built, and evaluated novel inspection tools for Cascading Style Sheets, based on research in programming languages and the learning sciences.

Jan 2018 – Present    *Undergraduate Researcher, Theory Group*    Advisor: Jason Hartline

Developed algorithms for estimating the skill of peer graders using low-rank matrix approximations, as part of an NSF REU. Project ongoing as of summer 2019.

Jan 2017 – Apr 2017    *Research Assistant, Center for Connected Learning*    Advisor: Jason Bertsche

Implemented linear algebra primitives and experimental Web Worker compilation for the NetLogo Web multi-agent modeling platform.

Sep 2013 – Jun 2014    **University of Washington**, Seattle, WA    PI: Jessica Sommerville

*Research Assistant, Early Childhood Cognition Lab*

Ran and coded eye-tracking studies on prosocial behavioral development in infancy.

## INDUSTRY EXPERIENCE

Jun 2019 – Present    **Notion**, San Francisco, CA

*Software Engineer*

Designing and building collaborative productivity tools in the tradition of end-user programming.

Oct 2018 – May 2019    **Khan Academy**, Mountain View, CA

*Software Engineer, Early Product Development*

Led client-side engineering for the site-wide learning time measurement system. Led preparation and submission of a paper on an experimental free-response system.

Previously    *Software Engineering Intern* at **Khan Academy** (2017), **LinkedIn** (2016).

*Design Intern* at **Common Cause Illinois** (2015).

## AWARDS AND HONORS

- 2018 UIST Best Paper Honorable Mention  
Outstanding Senior in Computer Science (top graduating CS major)
- 2017 First Place, CHI Student Research Competition  
Microsoft Tuition Scholarship
- 2016 Google Lime Scholarship  
Box Engineering Diversity Scholarship  
Palantir Women in Technology Scholarship  
Alumnae of Northwestern University STEM Scholarship  
Northwestern Undergraduate Research Grant
- 2015 Milton S. Florsheim Prize for Excellence in Debate
- 2014 National Merit Scholarship

## CONFERENCE TRAVEL GRANTS

- 2019 Oregon Programming Languages Summer School (OPLSS)
- 2018 ICFP Programming Languages Mentoring Workshop (PLMW)
- 2017 EECS Department Travel Grant  
Office of Undergraduate Research Travel Grant  
Weinberg College of Arts and Sciences Travel Grant
- 2016 SC16 Experiencing HPC for Undergraduates Program  
Google Grace Hopper Travel Grant

## PUBLICATIONS

- Sarah Lim, Joshua Hibschan, Haoqi Zhang, and Eleanor O'Rourke. 2018. Ply: A Visual Web Inspector for Learning from Professional Webpages. In *Proceedings of the 31st Annual ACM Symposium on User Interface Software and Technology (UIST '18)* **Best Paper Honorable Mention**
- Sarah Lim. 2017. Visual Regression Pruning for Web Design Source Inspection. In *Proceedings of the 2017 CHI Conference Extended Abstracts on Human Factors in Computing Systems (CHI EA '17)* **First Place, Student Research Competition**

## WORKING PAPERS

- Andy Matuschak, Nick Barr, May-Li Khoe, Scott Farrar, Brian Johnsrud, and Sarah Lim. 2019. Designing a Structured Activity Platform to Scaffold Complex Skills. (2019). Working paper.

## INVITED TALKS

- 2019 *Dangerous Experiments in WebAssembly Instrumentation*. React Rally, Salt Lake City, UT. August 2019 (upcoming).
- 2018 *Ply: A Visual Web Inspector for Learning from Professional Webpages*. UIST, Berlin, Germany. October 2018.
- 2017 *Big Ideas Forum: How We Learn About Learning*. Invited panelist. Northwestern University, Evanston, IL. May 2017.  
*Visual Regression Pruning for Web Design Source Inspection*. CHI Student Research Competition, Denver, CO. May 2017.
- 2016 *Guided CSS Inspection Using Tutorial Keyword Frequency*. Google Scholars' Retreat, Mountain View, CA. June 2016.

## TEACHING ASSISTANT EXPERIENCE

Spring 2018	EECS 397: Software Construction
Spring 2018	EECS 214: Data Structures
Winter 2018	EECS 111: Fundamentals of Computer Programming I (Head Teaching Assistant)
Fall 2017	EECS 474: Probabilistic Graphical Models
Fall 2017	EECS 111: Fundamentals of Computer Programming I (Head Teaching Assistant)
Spring 2017	EECS 214: Data Structures
Winter 2017	EECS 111: Fundamentals of Computer Programming I (Head Teaching Assistant)
Fall 2016	EECS 111: Fundamentals of Computer Programming I (Head Teaching Assistant)
Spring 2016	EECS 214: Data Structures
Winter 2016	EECS 111: Fundamentals of Computer Programming I
Fall 2015	EECS 111: Fundamentals of Computer Programming I

## UNIVERSITY SERVICE

Sep 2016 – Jun 2018	<i>Student Advisory Board</i> , Weinberg College of Arts and Sciences Invited advisor to the Dean on behalf of the Computer Science major.
Sep 2016 – Jun 2017	<i>Curricular Review Committee</i> , Weinberg College of Arts and Sciences One of two invited undergraduate members.

## POLICY DEBATE

2015-2017	Assistant Policy Debate Coach <ul style="list-style-type: none"><li>• Consulted for top-ranked high school teams in California, Washington, Illinois</li><li>• Instructor at Northwestern Summer Debate Institute (2016)</li><li>• Adjudicated 70+ rounds of national-level competition</li></ul>
2012-2016	Selected Competitive Achievements <ul style="list-style-type: none"><li>• Sweet 16, Georgia State University National Collegiate Invitational (2016)</li><li>• Milton S. Florsheim Prize for Excellence in Debate, Northwestern University (2015)</li><li>• Women's Debate Institute Collegiate Scholar (2014)</li><li>• Top Individual Speaker, Stanford Invitational (2014), Gonzaga Invitational (2014)</li><li>• 2nd Place Speaker, UC Berkeley Invitational (2014) – 500+ competitors</li></ul>