

Sarah Lim

Northwestern University, Evanston, IL, USA
sarah@sarahlim.com <http://sarahlim.com>

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: Design, Technology, and Research, 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

Designed 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

Designed 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 tools for 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, implemented in Firefox 70 as Inactive CSS**
- 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 *WebAssembly: All the memory safety of C combined with all the blazing speed of JavaScript.* React Rally, Salt Lake City, UT. August 2019.
- 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">• Consulted for top-ranked high school teams in California, Washington, Illinois• Instructor at Northwestern Summer Debate Institute (2016)• Adjudicated 70+ rounds of national-level competition
2012-2016	Selected Competitive Achievements <ul style="list-style-type: none">• Sweet 16, Georgia State University National Collegiate Invitational (2016)• Milton S. Florsheim Prize for Excellence in Debate, Northwestern University (2015)• Women's Debate Institute Collegiate Scholar (2014)• Top Individual Speaker, Stanford Invitational (2014), Gonzaga Invitational (2014)• 2nd Place Speaker, UC Berkeley Invitational (2014) – 500+ competitors