

Sarah “Slim” Lim

Electrical Engineering and Computer Science
UC Berkeley, CA, USA

slimberly@berkeley.edu <https://slim.computer>

RESEARCH INTERESTS

Programming languages, human-computer interaction, computing education.

EDUCATION

- Aug 2021 – Present **University of California, Berkeley**, Ph.D. Computer Science
Advisor: Sarah Chasins
- 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

EMPLOYMENT

- Nov 2022 – Present **Notion**, *Software Engineer* San Francisco, CA
Part of the team responsible for setting company-wide technical direction. Designing conflict resolution algorithms; decoupling application logic from persistence layers.
- Jun 2021 – Sep 2021 **Ink & Switch**, *Researcher*
Developed Peritext, a novel CRDT for rich text editing.
- Jun 2019 – Aug 2021 **Notion**, *Software Engineer* San Francisco, CA
Led full-stack feature development for search, equations, imports, and other editor features. Worked on infrastructure for scaling Elasticsearch, Postgres, build systems.
- Oct 2018 – May 2019 **Khan Academy**, *Software Engineer* Mountain View, CA
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 as part of the Early Product Development team.
- Jun 2018 – Oct 2018 **Microsoft Research**, *Research Intern* Cambridge, UK
Designed and implemented algorithms for augmenting remote collaboration with machine vision. Designed and built prototype interfaces for content search.
- Jul 2017 – Sep 2017 **Khan Academy**, *Software Engineering Intern* Mountain View, CA
Rebuilt exercise reports to help teachers visualize class progress and attempt history. Added experimental step-through debugging to the Computer Programming editor.
- Jul 2016 – Sep 2016 **LinkedIn**, *UI Engineering Intern* Sunnyvale, CA
Built an SVG time-series charting extension, replacing Highcharts in production. Designed recruiter similarity metrics.

PUBLICATIONS

- Geoffrey Litt, Sarah Lim, Martin Kleppmann, Peter van Hardenberg. 2022. Peritext: A CRDT for Collaborative Rich Text Editing. In *Proceedings of the ACM on Human-Computer Interaction*, Vol. 6, No. CSCW2, Article 531.

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)*. ACM, New York, NY, USA **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)*. ACM, New York, NY, USA **First Place, Student Research Competition**

AWARDS AND HONORS

- 2021 NSF Graduate Research Fellowship
- 2020 UC Berkeley Chancellor's Fellowship
- 2018 UIST Best Paper Honorable Mention
Outstanding Senior in Computer Science
- 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

- 2022 Oregon Programming Languages Summer School (OPLSS)
Dagstuhl Seminar on Theories of Programming
- 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

INVITED TALKS

- 2022 *Peritext: A CRDT for Collaborative Rich Text Editing*. UC Santa Cruz Languages, Systems, and Data Seminar. April 2022.
- 2019 *Why is CSS Hard?* Ink & Switch. November 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*. 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

** indicates head teaching assistant role*

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

PROFESSIONAL SERVICE

2020	Social Co-Chair, PL/HCI Swimmer School
2019	External Reviewer, UIST

DEPARTMENTAL SERVICE

2016 – 2018	Student Advisory Board, Northwestern University
2016 – 2017	Curricular Review Committee, Northwestern University