Sarah E. Chasins

University of California, Berkeley
Berkeley, CA USA
✉ schasins@cs.berkeley.edu
🌐 schasins.com
☊ schasins

Research Mission

To democratize programming, especially to empower social scientists, scientists, journalists, policy makers, and other non-traditional programmers. To make programming tools so usable that automating a task is easier than teaching the same task to a human.

Areas of Specialization

Programming Languages · Human-Computer Interaction · Program Synthesis · Data Science · Programming Tools for Domain Experts from Non-Computing Fields

Positions

2020-present	**University of California, Berkeley**, *Assistant Professor* Department: **Electrical Engineering and Computer Sciences**
2023-present	**UiPath**, *Principal Applied Scientist* UiPath AI and Research organization
2022-2024	**UiPath**, *AI Advisory Board Member* AI Advisory Board
2019-2020	**University of Washington**, *Research Scientist* Lab: **UW PLSE**

Education

2019	**University of California, Berkeley**, *Ph.D.*, Computer Science Advisor: Rastislav Bodik
2012	**Swarthmore College**, *B.A. with Highest Honors*, Computer Science and Behavioral Economics Advisor: Tia Newhall

Selected Publications

PLDI '25	Justin Lubin, Parker Ziegler, **Sarah E. Chasins**, *Programming by Navigation*, Proceedings of the 46th ACM SIGPLAN International Conference on Programming Language Design and Implementation, (PLDI '25), June 2025
PLDI '25	Parker Ziegler, Justin Lubin, **Sarah E. Chasins**, *Fast Direct Manipulation Programming with Patch-Reconciliation Correspondence*, Proceedings of the 46th ACM SIGPLAN International Conference on Programming Language Design and Implementation, (PLDI '25), June 2025
CHI '25	Eric Rawn, **Sarah E. Chasins**, *Pagebreaks: Multi-Cell Scopes in Computational Notebooks*, Proceedings of the 2025 CHI Conference on Human Factors in Computing Systems, (CHI '25), April 2025

CIDR '25	Rolando Garcia, Pragya Kallanagoudar, Chithra Anand, **Sarah E. Chasins**, Joseph M. Hellerstein, Erin M.T. Kerrison, Aditya G. Parameswaran, *Flow with FlorDB: Incremental Context Maintenance for the Machine Learning Lifecycle*, Conference on Innovative Data Systems Research, (CIDR '25), January 2025
bioRxiv	Da Xu, Swen Besselink, Gokul N. Ramadoss, Philip H. Dierks, Justin P. Lubin, Rithu K. Pattali, Jinna I. Brim, Anna E. Christenson, Peter J. Colias, Izaiah J. Ornelas, Carolyn D. Nguyen, **Sarah E. Chasins**, Bruce R. Conklin, James K. Nuñez, *Programmable epigenome editing by transient delivery of CRISPR epigenome editor ribonucleoproteins*, bioRxiv, (bioRxiv), 2024
PLDI '24	Justin Lubin, Jeremy Ferguson, Kevin Ye, Jacob Yim, **Sarah E. Chasins**, *Equivalence by Canonicalization for Synthesis-Backed Refactoring*, Proceedings of the 45th ACM SIGPLAN International Conference on Programming Language Design and Implementation, (PLDI '24), June 2024
PLDI '24	Gabriel Matute, Wode Ni, Titus Barik, Alvin Cheung, **Sarah E. Chasins**, *Syntactic Code Search with Sequence-to-Tree Matching*, Proceedings of the 45th ACM SIGPLAN International Conference on Programming Language Design and Implementation, (PLDI '24), June 2024
CHI '24	Hellina Hailu Nigatu, John Canny, **Sarah E. Chasins**, *Low-Resourced Languages and Online Knowledge Repositories: A Need-Finding Study*, Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems, (CHI '24), May 2024
OOPSLA '23	Lisa Rennels, **Sarah E. Chasins**, *How Domain Experts Use an Embedded DSL*, Proceedings of the 2023 ACM SIGPLAN International Conference on Object-Oriented Programming, Systems, Languages, and Applications, (OOPSLA '23), October 2023
FAccT '23	Hellina Hailu Nigatu, Lisa Pickoff-White, John Canny, **Sarah Chasins**, *Co-Designing for Transparency: Lessons from Building a Document Organization Tool in the Criminal Justice Domain*, Proceedings of the 2023 ACM Conference on Fairness, Accountability, and Transparency, (FAccT '23), June 2023
CHI '23	Eric Rawn, Jingyi Li, Eric Paulos, **Sarah E. Chasins**, *Understanding Version Control as Material Interaction with Quickpose*, Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems, (CHI '23), April 2023
CHI '23	Parker Ziegler, **Sarah E. Chasins**, *A Need-Finding Study with Users of Geospatial Data*, Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems, (CHI '23), April 2023
UIST '22	Dhanya Jayagopal, Justin Lubin, **Sarah E. Chasins**, *Exploring the Learnability of Program Synthesizers by Novice Programmers*, Proceedings of the 35th Annual ACM Symposium on User Interface Software and Technology, (UIST '22), October 2022

VLDB '22	Shreya Shankar, Stephen Macke, **Sarah Chasins**, Andrew Head, Aditya Parameswaran, *Bolt-on, Compact, and Rapid Program Slicing for Notebooks*, Proceedings of the VLDB Endowment, (VLDB '22), September 2022
CoRR '22	**Sarah E. Chasins**, Alvin Cheung, Natacha Crooks, Ali Ghodsi, Ken Goldberg, Joseph E. Gonzalez, Joseph M. Hellerstein, Michael I. Jordan, Anthony D. Joseph, Michael W. Mahoney, Aditya G. Parameswaran, David A. Patterson, Raluca Ada Popa, Koushik Sen, Scott Shenker, Dawn Song, Ion Stoica, *The Sky Above The Clouds*, Computing Research Repository, (CoRR '22), May 2022
CHI EA '22	Chris Hess, **Sarah E. Chasins**, *Informing Housing Policy through Web Automation: Lessons for Designing Programming Tools for Domain Experts*, Extended Abstracts of the 2022 CHI Conference on Human Factors in Computing Systems, (CHI EA '22), April 2022
AI Mag. '22	Michael Cafarella, Michael Anderson, Iz Beltagy, Arie Cattan, **Sarah Chasins**, Ido Dagan, Doug Downey, Oren Etzioni, Sergey Feldman, Tian Gao, Tom Hope, Kexin Huang, Sophie Johnson, Daniel King, Kyle Lo, Yuze Lou, Matthew Shapiro, Dinghao Shen, Shivashankar Subramanian, Lucy Lu Wang, Yuning Wang, Yitong Wang, Daniel S. Weld, Jenny Vo-Phamhi Anna Zeng, Jiayun Zou, *Infrastructure for Rapid Open Knowledge Network Development*, AI Magazine, (AI Mag. '22), March 2022
CIDR '22	Michael R. Anderson, Yuze Lou, Jiayun Zou, Michael J. Cafarella, **Sarah E. Chasins**, Doug Downey, Tian Gao, Kexin Huang, Dinghao Shen, Jenny M. Vo-Phamhi, Yitong Wang, Yuning Wang, Anna Zeng, *Building a Shared Conceptual Model of Complex, Heterogeneous Data Systems: A Demonstration*, 12th Conference on Innovative Data Systems Research, (CIDR '22), January 2022
OOPSLA '21	Justin Lubin, **Sarah E. Chasins**, *How Statically-Typed Functional Programmers Write Code*, Proceedings of the 2021 ACM SIGPLAN International Conference on Object-Oriented Programming, Systems, Languages, and Applications, (OOPSLA '21), October 2021
CACM '21	**Sarah E. Chasins**, Elena Glassman, Joshua Sunshine, *PL and HCI: Better Together*, Communications of the ACM, (CACM '21), August 2021
Environment and Planning A: Economy and Space	Chris Hess, Arthur Acolin, Rebecca Walter, Ian Kennedy, **Sarah E. Chasins**, Kyle Crowder, *Searching for housing in the digital age: Neighborhood representation on internet rental housing platforms across space, platform and metropolitan segregation*, Environment and Planning A: Economy and Space, July 2021
Cityscape '21	Ana Costa, Victoria Sass, Ian Kennedy, Roshni Roy, Rebecca J. Walter, Arthur Acolin, Kyle Crowder, Chris Hess, Alex Ramiller, **Sarah E. Chasins**, *Toward a Cross-Platform Framework: Assessing the Comprehensiveness of Online Rental Listings*, Cityscape Volume 23, No. 2 (HUD Office of Policy Development and Research), (Cityscape '21), July 2021
TOCE '21	Kyle Thayer, **Sarah E. Chasins**, Amy J. Ko, *A Theory of Robust API Knowledge*, ACM Transactions on Computing Education, (TOCE '21), March 2021

Social Forces '20	Ian Kennedy, Amandalynne Paullada, Chris Hess, **Sarah E. Chasins**, *Racialized Discourse in Seattle Rental Ad Texts*, Social Forces, Volume 99, Issue 4, (Social Forces '20), August 2020
UIST 19	Eunice Jun, Maureen Daum, Jared Roesch, **Sarah E. Chasins**, Emery D. Berger, Rene Just, and Katharina Reinecke, *Tea: A High-level Language and Runtime System for Automating Statistical Analysis*, Proceedings of the 32nd Annual ACM Symposium on User Interface Software and Technology, (UIST 2019), October 2019
ASA 19	Ian Kennedy, Amandalynne Paullada, Chris Hess, **Sarah E. Chasins**, *Seattle Rental Ad Texts and Processes of Segregation*, Proceedings of the 114th Annual Meeting of the American Sociological Association (ASA 2019)
Cityscape 19	Chris Hess, Rebecca J. Walter, Arthur Acolin, **Sarah E. Chasins**, *Shaping Small Area Fair Market Rent Implementation to Respond to Diverse Housing Markets*, Cityscape Volume 23 (HUD Office of Policy Development and Research, November 2019)
PAA 19	Ian Kennedy, Amandalynne Paullada, Chris Hess, **Sarah E. Chasins**, *Seattle Rental Ad Texts and Processes of Segregation: Using Craigslist to Understand Neighborhood Perception Patterns*, Proceedings of the 88th Annual Meeting of the Population Association of America (PAA 2019)
UIST 18	**Sarah E. Chasins**, Maria Mueller, Rastislav Bodik, *Rousillon: Scraping Distributed Hierarchical Web Data*, Proceedings of the 31st Annual ACM Symposium on User Interface Software and Technology, (UIST 2018), October 2018
PAA 18	Erin Carll, Chris Hess, Kyle Crowder, Jerry Herting, **Sarah E. Chasins**, Claire Lawry, Adam Kirstein, Logan Young, Ian Kennedy, *The Practices and Attitudes of Rental Property Owners/Managers in a Tight and Increasingly Regulated Housing Market*, Proceedings of the 87th Annual Meeting of the Population Association of America (PAA 2018)
OOPSLA 17	**Sarah E. Chasins**, Rastislav Bodik, *Skip Blocks: Reusing Execution History to Accelerate Web Scripts*, Proceedings of the ACM on Programming Languages Volume 1 Issue OOPSLA, (OOPSLA 2017), October 2017
CAV 17	**Sarah E. Chasins**, Phitchaya Mangpo Phothilimthana, *Data-Driven Synthesis of Full Probabilistic Programs*, Proceedings of the 29th International Conference on Computer Aided Verification, (CAV 2017), July 2017
OOPSLA 16	Shaon Barman, **Sarah E. Chasins**, Rastislav Bodik, Sumit Gulwani, *Ringer: Web Automation by Demonstration*, Proceedings of the 31st ACM SIGPLAN Proceedings of the International Conference on Object-Oriented Programming, Systems, Languages, and Applications, (OOPSLA 2016), November 2016
SYNT 16	**Sarah E. Chasins**, Julie Newcomb, *Using SyGuS to Synthesize Reactive Motion Plans*, Proceedings of the 5th Workshop on Synthesis, (SYNT@CAV 2016), July 2016

PLDI 14 Phitchaya Mangpo Phothilimthana, Tikhon Jelvis, Rohin Shah, Nishant Totla, **Sarah E. Chasins**, Rastislav Bodik, *Chlorophyll: Synthesis-Aided Compiler for Low-Power Spatial Architectures*, Proceedings of the 35th ACM SIGPLAN Conference on Programming Language Design and Implementation, (PLDI 2014), June 2014

WWW 15 **Sarah E. Chasins**, Shaon Barman, Sumit Gulwani, Rastislav Bodik, *Browser Record and Replay as a Building Block for End-User Web Automation Tools*, Proceedings of the 24th International Conference on World Wide Web Companion, (WWW 2015), May 2015

WWW 15 **Sarah E. Chasins**, Phitchaya Mangpo Phothilimthana, *Dicer: A Framework for Controlled, Large-Scale Web Experiments*, Proceedings of the 24th International Conference on World Wide Web Companion, (WWW 2015), May 2015

PLATEAU 14 Joel Galenson, Cindy Rubio-Gonzalez, **Sarah E. Chasins**, Liang Gong, *Research.js: Evaluating Research Tool Usability on the Web*, Proceedings of the 5th Workshop on Evaluation and Usability of Programming Languages and Tools, (PLATEAU 2014), October 2014

OBT 13 Saurabh Srivastava, Tim Hsiau, **Sarah E. Chasins**, Jonathan Kotker, Yen-Sheng Ho, Paul Ruan, Jeff Tsui, Stephi Hamilton, Jene Li, J. Christopher Anderson, Sanjit A. Seshia, and Rastislav Bodik, *Biochemistry as a Programming Language*, Proceedings of Off the Beaten Track (OBT/POPL 2013), January 2013

OOPSLA 11 SRC **Sarah E. Chasins**, *Efficient Implementation of the Plaid Language*, Proceedings of the 26th Annual ACM SIGPLAN Conference on Object-Oriented Programming, Systems, Languages, and Applications Companion, (OOPSLA 2011), Portland, October 2011

Selected Service

2017–present	**Co-Organizer**, *PLATEAU annually 2018–present*
2026	**Program Committee—Associate Chair**, *OOPSLA 2026*
2025	**Program Committee**, *POPL 2025*
2024	**Program Committee**, *PLDI 2024*
2020–present	**Reviewer**, *CHI 2020–present*
2019–present	**Reviewer**, *UIST 2019–present*
2024	**SRC Judge**, *PLDI 2024*
2023–present	**WICSE Faculty Advisor**, *Berkeley WICSE Organization*
2022	**Program Committee**, *PLDI 2022*
2022	**Co-Founder and Co-Organizer**, *PL+HCI Summer School*
2021	**Program Committee**, *OOPSLA 2021*
2021	**Program Committee**, *ASPLOS 2021*
2020–2021	**Co-Chair**, *PLDI SRC 2020–2021*
2021	**Reviewer**, *ACM SRC Grand Finals 2021*

2020	**Extended Review Committee**, *PLDI 2020*
2020	**Co-Founder and Co-Organizer**, *PL+HCI Summer School*
2018	**SRC Reviewer, SRC Judge**, *SPLASH 2018*
2017	**Submissions Chair**, *SNAPL 2017*

Selected Honors

- CZ Biohub Investigator, 2022–present
- Jim and Donna Gray Award for Excellence in Undergraduate Teaching of Computer Science, 2024
- Google Research Scholar Program Award, 2021
- EECS Rising Stars
- ARCS Fellowship for Graduate Study
- NSF Graduate Research Fellow (NSF GRFP)
- UC Berkeley EECS Outstanding Graduate Student Instructor Award
- EECS Chair's Excellence Award, UC Berkeley
- First Place Winner, Grand Finals ACM Student Research Competition
- First Place Winner, SPLASH ACM Undergraduate Student Research Competition
- Highest Honors (HHH), Swarthmore
- Phi Beta Kappa, Sigma Xi