

PhD Student  
Department of Cognitive Science  
University of California, San Diego (UCSD)

Updated: December 13, 2020  
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## RESEARCH INTERESTS

Human-computer interaction, data science, online learning, cybersecurity

## ACADEMIC POSITIONS

01/2018 – **The Johns Hopkins Bloomberg School of Public Health**, Baltimore, MD  
Associate Faculty of Biostatistics

01/2017 – 05/2017 **The University of Pennsylvania School of Design**, Philadelphia, PA  
Adjunct Faculty of Design

## EDUCATION

09/2017 – **The University of California, San Diego**, La Jolla, CA  
Ph.D. in Cognitive Science  
Advisor: Philip Guo

09/2017 – 03/2020 **The University of California, San Diego**, La Jolla, CA  
M.S. in Cognitive Science  
Advisor: Philip Guo

06/2012 – 05/2015 **The University of Maryland, College Park**, College Park, MD  
Bachelor of Science in Computer Science

09/2008 – 05/2012 **New York University**, New York, NY  
Bachelor of Arts in Biology

## AWARDS AND HONORS

08/2020 USENIX Security Distinguished Paper Award [C.10]

05/2019 CHI Honorable Mention Paper Award [C.7]

05/2012 New York University President's Service Award

## PRIOR EMPLOYMENT

05/2020 – 08/2020 **Microsoft Research**, New York, NY  
Research Intern – Computational Social Science Group

09/2015 – 09/2017 **The Johns Hopkins Bloomberg School of Public Health**, Baltimore, MD  
Chief Technology Officer – Johns Hopkins Data Science Lab

01/2014 – 07/2015 **University of Maryland**, College Park, MD  
Research Assistant – Computational Biology Group – Advisor: Mihai Pop

01/2012 – 05/2012 **New York University**, New York, NY  
Research Assistant – Genomics Group – Advisor: Patrick Eichenberger

## PUBLICATIONS

- C.11 Xiaoying Pu, **Sean Kross**, Jake Hofman, Daniel Goldstein. Datamations: Animated Explanations of Data Analysis Pipelines. In Proceedings of CHI 2021: *ACM Conference on Human Factors in Computing Systems*, May 2021. Yokohama, Japan.
- C.10 Elissa M. Redmiles, Noel Warford, Amritha Jayanti, Aravind Koneru, **Sean Kross**, Miraida Morales, Rock Stevens, Michelle L. Mazurek. A Comprehensive Quality Evaluation of Security and Privacy Advice on the Web. In Proceedings of the 2020 USENIX Security Symposium. August 2020. (**Distinguished Paper Award**)
- C.9 Elissa M. Redmiles, Lisa Maszkiewicz, Emily Hwang, Dhruv Kuchhal, Everest Liu, Miraida Morales, Denis Peskov, Sudha Rao, Rock Stevens, Kristina Gligorić, **Sean Kross**, Michelle L. Mazurek, Hal Daumé III. Comparing and Developing Tools to Measure the Readability of Domain-Specific Texts. In Proceedings of EMNLP 2019: *ACL SIGDAT Conference on Empirical Methods in Natural Language Processing*, November 2019. Hong Kong, China.
- C.8 **Sean Kross** and Philip J. Guo. End-User Programmers Repurposing End-User Programming Tools to Foster Diversity in Adult End-User Programming Education. In Proceedings of VL/HCC 2019: *IEEE Symposium on Visual Languages and Human-Centric Computing*, October 2019. Memphis, TN, USA.
- C.7 **Sean Kross** and Philip J. Guo. Practitioners Teaching Data Science in Industry and Academia: Expectations, Workflows, and Challenges. In Proceedings of CHI 2019: *ACM Conference on Human Factors in Computing Systems*, May 2019. Glasgow, UK. (**Honorable Mention Paper Award**)
- C.6 Elissa M. Redmiles, **Sean Kross**, Michelle L. Mazurek. How Well Do My Results Generalize? Comparing Security and Privacy Survey Results from MTurk, Web, and Telephone Samples. In Proceedings of S&P 2019: *IEEE Symposium on Security and Privacy*, May 2019. San Francisco, CA, USA.
- C.5 Elissa M. Redmiles, Ziyun Zhu, **Sean Kross**, Dhruv Kuchhal, Tudor Dumitras, Michelle L. Mazurek. Asking for a Friend: Evaluating Response Biases in Security User Studies. In Proceedings of CCS 2018: *ACM Conference on Computer and Communications Security*, October 2018. Toronto, ON, Canada.
- C.4 **Sean Kross** and Philip J. Guo. Students, Systems, and Interactions: Synthesizing the First Four Years of Learning@Scale and Charting the Future. In Proceedings of L@S 2018: *ACM Conference on Learning at Scale*, June 2018. London, UK.
- C.3 Elissa M. Redmiles, **Sean Kross**, Michelle L. Mazurek. Where is the Digital Divide? Examining the Impact of Socioeconomics on Security and Privacy Outcomes. In Proceedings of CHI 2017: *ACM Conference on Human Factors in Computing Systems*, May 2017. Denver, CO, USA.
- C.2 Elissa M. Redmiles, **Sean Kross**, Michelle L. Mazurek. How I Learned to be Secure: a Census-Representative Survey of Security Advice Sources and Behavior. In Proceedings of CCS 2016: *ACM Conference on Computer and Communications Security*, October 2016. Vienna, Austria.

	<p>C.1 Elissa Redmiles, Mary Allison Abad, Isabella Coronado, <b>Sean Kross</b>, Amelia Malone. A Classroom Tested Accessible Multimedia Resource for Engaging Underrepresented Students in Computing. In Proceedings of SIGCSE 2015: <i>ACM Conference on Computer Science Education</i>, March 2015. Kansas City, MO, USA.</p>
JOURNAL PAPERS	<p>J.3 <b>Sean Kross</b>, Jeffery T. Leek, John Muschelli. Ari: The Automated R Instructor. In <i>The R Journal</i>, 2020.</p> <p>J.2 Lucy D’Agostino McGowan, <b>Sean Kross</b>, Jeffery T. Leek. Tools for Analyzing R Code the Tidy Way. In <i>The R Journal</i>, 2020.</p> <p>J.1 <b>Sean Kross</b>, Roger D. Peng, Brian S. Caffo, Ira Gooding, Jeffery T. Leek. The Democratization of Data Science Education. In <i>The American Statistician</i>, 2020.</p>
BOOKS	<p>B.2 <b>Sean Kross</b>. The Unix Workbench. Leanpub, 2017.</p> <p>B.1 Roger D. Peng, <b>Sean Kross</b>, Brooke Anderson. Mastering Software Development in R. Leanpub, 2017.</p>
<b>FUNDING</b>	
	<p>F.1 Facebook Research: Economic Opportunity and Digital Platforms. “Learning Online: Who Benefits, Who is Left Behind?” \$50,000. PI: Eszter Hargittai, co-PI: <b>Sean Kross</b>, co-PI: Elissa M. Redmiles. 2020.</p>
<b>TALKS</b>	
	<ul style="list-style-type: none"> <li>• The Challenges of Analytic Workflows: Perspectives from Data Science Educators. <i>The Eastern North American Region of the International Biometric Society (ENAR)</i>, Nashville, TN, March 2020.</li> <li>• The Lean Course: Open and Collaborative Online Course Development. <i>Joint Statistical Meetings</i>, Vancouver, BC, Canada, July 2018.</li> <li>• Lessons from Teaching Data Science to Over a Million People. <i>Crunch Conference</i>, Budapest, Hungary, October 2017.</li> <li>• Beyond Axes: Simulating Systems with Interactive Graphics. <i>Joint Statistical Meetings</i>, Baltimore, MD, August 2017.</li> <li>• Re-thinking the Value Added by a Data Repository. <i>Dataverse Community Meeting</i>, Cambridge, MA, June 2017.</li> <li>• Scaling Data Science Education. <i>Seminário Internacional de Estatística</i>, Rio de Janeiro, Brazil, May 2016.</li> </ul>
<b>TEACHING</b>	
INSTRUCTOR	<ul style="list-style-type: none"> <li>• Johns Hopkins University on Coursera.org: The Unix Workbench (Continually since Summer 2017)</li> <li>• The University of Pennsylvania MUSA 850: Data Wrangling and Data Visualization (Spring 2017)</li> </ul>
TEACHING ASSISTANT	<ul style="list-style-type: none"> <li>• UCSD COGS 127: Data-Driven User Experience and Product Design (Fall 2019, 2020)</li> <li>• UCSD COGS 9: Introduction to Data Science (Winter 2019)</li> <li>• UCSD COGS 120/CSE 170: Human-Computer Interaction Design (Fall 2017, 2018)</li> <li>• UCSD COGS 121 Human-Computer Interaction Programming Studio (Spring 2018)</li> </ul>