

EDUCATION	<b>University of California, San Diego</b> PhD, Computer Science and Engineering	<b>Sept 2014 – present</b>
	<b>University of California, San Diego</b> M.S., Computer Science and Engineering GPA: 3.77/4.0	<b>Dec 2016</b>
	<b>University of Toronto, Victoria College</b> Honours B.Sc. with High Distinction, Specialist in Math & Computer Science, Major in Music GPA: 3.94/4.0	<b>June 2013</b>
RESEARCH POSITIONS	<b>PhD Researcher, The Design Lab, UCSD</b> Working under the supervision of Scott Klemmer: <ul style="list-style-type: none"><li>Exploring techniques and building tools for supporting creativity by harvesting existing expert content and recommending relevant examples to people in the context of their work</li></ul> Previously under the supervision of Nadir Weibel: <ul style="list-style-type: none"><li>Studied the processes of communication and uses of technology in radiation oncology, identified areas and proposed next steps for technological improvement</li></ul>	<b>Fall 2014 – present</b>
	<b>Creative Intelligence Lab Intern, Adobe Systems Inc.</b> Worked under the supervision of Mira Dontcheva: <ul style="list-style-type: none"><li>Studied techniques for improving navigation of creative live stream videos</li></ul>	<b>Jun – Sept 2019</b>
	<b>Creative Intelligence Lab Intern, Adobe Systems Inc.</b> Worked under the supervision of Mira Dontcheva: <ul style="list-style-type: none"><li>Studied techniques for embedding expert software videos in the creative process</li></ul>	<b>Jun – Sept 2017</b>
	<b>User Interface Research Intern, Autodesk Inc.</b> Worked under the supervision of Tovi Grossman: <ul style="list-style-type: none"><li>Studied team collaboration on physical tasks, developed and evaluated a system to improve task distribution and instruction display</li></ul>	<b>Jun – Sept 2016</b>
	<b>Creative Technologies Lab Intern, Adobe Systems Inc.</b> Worked under the supervision of Mira Dontcheva and Holger Winnemöller: <ul style="list-style-type: none"><li>Developed and evaluated a suggestion tool to help novice users get started in complex software, in collaboration with Scott Klemmer at UCSD</li></ul>	<b>Jun – Sept 2015</b>
	<b>PhD Researcher, Graphics and Vision group, UCSD</b> Worked under the supervision of Ravi Ramamoorthi: <ul style="list-style-type: none"><li>Studied interactive real-time BRDF editing, wrote a program to render objects under environment lighting and edit reflectance properties using interactive brushes</li></ul>	<b>Jan – Mar 2015</b>
	<b>Research Assistant, DGP Lab, University of Toronto</b> Worked under the supervision of Kyros Kutulakos on a project in Computer Vision: <ul style="list-style-type: none"><li>Studied BRDF acquisition and visual texture analysis, extended existing “primal-dual coding” camera system to isolate light transport based on direction and distance of travel</li></ul>	<b>Sept 2013 – May 2014</b>
	<b>Individual Research Project Course, University of Toronto</b> Worked under the supervision of Karen Reid: <ul style="list-style-type: none"><li>Evaluated benefits of a Python memory visualizer, added sorting-by-patterns functionality to the CRS used in introductory CS classes for real-time analysis of student submissions</li></ul>	<b>Sept – Dec 2012</b>

- PUBLICATIONS** **C. Ailie Fraser**, Joy Kim, Valentina Shin, Joel Brandt, and Mira Dontcheva. 2020. Temporal Segmentation of Creative Live Streams. To appear in *Proceedings of CHI '20*.
- C. Ailie Fraser**, Mira Dontcheva, Joy Kim, and Scott Klemmer. How Live Streaming Does (and Doesn't) Change Creative Practices. 2020. *interactions Jan/Feb 2020*.
- C. Ailie Fraser**, Joy Kim, Alison Thornsberry, Scott Klemmer, and Mira Dontcheva. 2019. Sharing the Studio: How Creative Livestreaming can Inspire, Educate, and Engage. *Proceedings of Creativity & Cognition '19*.
- C. Ailie Fraser**, Tricia J. Ngoon, Mira Dontcheva, and Scott Klemmer. 2019. RePlay: Contextually presenting learning videos across software applications. *Proceedings of CHI '19*.
- Tricia J. Ngoon, **C. Ailie Fraser**, Ariel S. Weingarten, Mira Dontcheva, and Scott Klemmer. 2018. Interactive Guidance Techniques for Improving Creative Feedback. *Proceedings of CHI '18*. Honorable Mention.
- C. Ailie Fraser**, Tovi Grossman, and George Fitzmaurice. 2017. WeBuild: Automatically Distributing Assembly Tasks Among Collocated Workers to Improve Coordination. *Proceedings of CHI '17*.
- C. Ailie Fraser**, Mira Dontcheva, Holger Winnemöller, Sheryl Ehrlich, and Scott Klemmer. 2016. DiscoverySpace: Suggesting Actions in Complex Software. *Proceedings of DIS '16*.
- Catherine M. Hicks, Vineet Pandey, **C. Ailie Fraser**, and Scott R. Klemmer. 2016. Framing Feedback: Choosing Review Environment Features that Support High Quality Peer Assessment. *Proceedings of CHI '16*.
- EXTENDED ABSTRACTS** **C. Ailie Fraser**, Julia M. Markel, N. James Basa, Mira Dontcheva, and Scott Klemmer. 2019. ReMap: Multimodal Help-Seeking. *UIST '19 Adjunct*.
- C. Ailie Fraser**, Joy Kim, Scott Klemmer, and Mira Dontcheva. 2019. Creative livestreaming: How sharing one's process can inspire, educate, and engage. *CHI '19 Live Streaming Workshop*.
- C. Ailie Fraser**. 2018. The Right Content at the Right Time: Contextual Examples for Just-in-time Creative Learning. *UIST '18 Doctoral Symposium*.
- C. Ailie Fraser**, Mira Dontcheva, and Scott Klemmer. 2018. Software videos: Rich content and learning potential, but a challenge for sensemaking. *CHI '18 Sensemaking Workshop*.
- C. Ailie Fraser**, Tricia J. Ngoon, Ariel S. Weingarten, Mira Dontcheva, and Scott Klemmer. 2017. CritiqueKit: A Mixed-Initiative, Real-Time Interface For Improving Feedback. *UIST '17 Adjunct*.
- C. Ailie Fraser**, Mira Dontcheva, Holger Winnemöller, and Scott Klemmer. 2016. DiscoverySpace: Crowdsourced Suggestions Onboard Novices in Complex Software. *CSCW '16 Companion*.
- Catherine M. Hicks, **C. Ailie Fraser**, Purvi Desai, and Scott Klemmer. 2015. Do numeric ratings impact peer reviewers? *Learning at Scale '15*.

HONOURS AND AWARDS	Award for Excellence in Service/Leadership, CSE Department, UCSD	June 2019
	NSERC Postgraduate Scholarship – Doctoral (PGS-D)	Fall 2017 – Spring 2019
	Adobe Research Fellowship	2017
	Award for Contributions to Diversity, CSE Department, UCSD	June 2016
	Powell Fellowship, CSE Department, UCSD	Fall 2014 – Spring 2017
	NSERC CGS-M offers from UBC and U of T (declined)	April 2014
	Simeon Heman Janes Silver Medal	Spring 2013
	Dean's List	Spring 2010 – 2013
	Prof. William Kingston and Dr. John Kingston Scholarship	Fall 2012
	University of Toronto Scholar	Fall 2011
TEACHING & MENTORSHIP	Jessie Macpherson Memorial Scholarship	Fall 2011
	William Pearson Scott Scholarship	Fall 2010
	Mary Ellen Carty Residence Scholarship	Fall 2009
	<b>Mentor, Early Research Scholars Program, UCSD</b>	<b>Fall 2018 – Spring 2019</b>
	Mentored two undergraduate students in the Computer Science & Engineering department on a research project.	
	<b>Mentor, GradWIC Mentorship Program, CSE Department, UCSD</b>	<b>Fall 2017 – Spring 2019</b>
	Mentored three first-year graduate students in Computer Science & Engineering each year as part of the Graduate Women in Computing mentorship program.	
	<b>Teaching Assistant, UCSD</b>	<b>Fall 2015</b>
	<i>CSE 216 / COGS 230 – Interaction Design Research</i>	
	Managed course website, met with & advised students, moderated discussions, and graded projects.	
OTHER EXPERIENCE	<b>Teaching Assistant, University of Toronto</b>	<b>Winters 2012, 2013</b>
	<i>CSC148 – Introduction to Computer Science</i>	
	Ran weekly labs, graded exams and assignments, held office hours, and proctored exam.	
	<b>Freelance Web Design &amp; Development</b>	<b>Feb 2018 – present</b>
	Designed, built, and continue to manage website for Camp Wabikon ( <a href="http://www.wabikon.com">www.wabikon.com</a> )	
	<b>Web Developing Consultant</b>	<b>Nov 2013 – May 2014</b>
	Adapted a series of pitch recognition and memory tasks written in MATLAB to run online, as part of a study on music and language for the Rotman Research Institute at Baycrest	
	<b>Casual Employee, University of Toronto</b>	<b>June 2012 – April 2014</b>
	Web design and content for the Faculty of Arts & Science's "FAStanswers" website for first-year students.	
SERVICE AND LEADERSHIP	<b>Organizing Committee, ACM UIST</b>	<b>2020</b>
	Co-publicity chair for UIST 2020 conference.	
	<b>Organizing Committee, ACM Creativity &amp; Cognition</b>	<b>2019</b>
	Co-website chair for Creativity & Cognition conference. Built & managed website: <a href="https://cc.acm.org/2019">https://cc.acm.org/2019</a> .	
	<b>Website Lead, Diversity, Equity &amp; Inclusion Committee, UCSD</b>	<b>Fall 2017 – present</b>
	Member of department-wide committee in Computer Science and Engineering, composed of students, faculty, and staff dedicated to highlighting and expanding efforts to improve diversity. Manage content & design for <a href="#">DEI website</a> as well as special event websites.	
	<b>Graduate Women in Computing, UCSD</b>	<b>Fall 2015 – Spring 2019</b>
	Treasurer and Mentorship Committee member 2017-2019, President 2015-2017. GradWIC aims to increase awareness of diversity issues and foster an inclusive CSE community.	

**PhD Admissions Student Committee, UCSD****Fall 2017 – Spring 2019**

Co-leader of student committee for PhD admissions in the Computer Science and Engineering department.

**The Beat, UCSD****Fall 2014 – Spring 2016**

Assistant Music Director 2015-2016, Section Leader 2014-2015. Directed, sang, and arranged music for The Beat, an award-winning acappella choir.

**Member, Introductory Math and Science Committee****Fall 2012 – Spring 2013**

Faculty of Arts & Science, University of Toronto

**COURSEWORK  
AND SKILLS****Computer Skills:**

- HTML, Javascript, PHP, CSS, Swift, Python, MATLAB, C++, Java, C, SQL, OpenGL, OpenCV, Adobe Flash and Actionscript, Microsoft Office, Adobe Photoshop, LaTeX

**Relevant Coursework:**

- *Computer Science*: Research in HCI and Ubiquitous Computing, Information Visualization, Computer Graphics and Vision, Web Programming, Programming Languages, Object-Oriented and Systems Programming
- *Mathematics*: Mathematical Logic, Linear Algebra, Abstract Algebra, Calculus, Real and Complex Analysis