
EDUCATION	University of California, San Diego Apr 2020 PhD, Computer Science Advisor: Scott Klemmer Committee: Mira Dontcheva, Jim Hollan, Bill Griswold, Philip Guo, Björn Hartmann
	University of California, San Diego Dec 2016 M.S., Computer Science GPA: 3.77/4.0
	University of Toronto, Victoria College Jun 2013 Honours B.Sc. with High Distinction, Specialist in Math & Computer Science, Major in Music GPA: 3.94/4.0
PROFESSIONAL EXPERIENCE	Research Engineer Jun 2020 - present Creative Intelligence Lab, Adobe Inc.
	PhD Researcher Oct 2014 – Mar 2020 Design Lab, UC San Diego (Advisor: Scott Klemmer)
	Intern Jun – Sep 2019 Creative Intelligence Lab, Adobe Inc. (Supervisor: Mira Dontcheva)
	Intern Jun – Sep 2017 Creative Intelligence Lab, Adobe Inc. (Supervisor: Mira Dontcheva)
	User Interface Research Intern Jun – Sep 2016 Autodesk Inc. (Supervisor: Tovi Grossman)
	Intern Jun – Sep 2015 Creative Technologies Lab, Adobe Inc. (Supervisors: Mira Dontcheva & Holger Winnemöller)
	Research Assistant Sep 2013 – May 2014 DGP Lab, University of Toronto (Advisor: Kyros Kutulakos)
PUBLICATIONS	C. Ailie Fraser, Julia M. Markel, N. James Basa, Mira Dontcheva, and Scott Klemmer. 2020. ReMap: Lowering the Barrier to Help-Seeking with Multimodal Search. <i>Proceedings of UIST '20</i> .
	C. Ailie Fraser, Joy Kim, Valentina Shin, Joel Brandt, and Mira Dontcheva. 2020. Temporal Segmentation of Creative Live Streams. <i>Proceedings of CHI '20</i> .

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*. Honorable Mention.

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*.

DISSERTATION Contextually Recommending Expert Help and Demonstrations to Improve Creativity. 2020.
C. Ailie Fraser. *UC San Diego*.

PATENTS

Issued:

H. Shin, **C.A. Fraser**, A. Agarwala, L. Dontcheva, J.R. Brandt, J. Popovic. 2022. Video segmentation based on detected video features using a graphical model (US11455731B2)

W.H. Allen, L. Dontcheva, H. Lu, Z.P. McCullough, D.R. Stein, C. Nuuja, B. Ambry, J.R. Brandt, **C.A. Fraser**, J.O. Kim, H. Shin. 2021. Tool capture and presentation system. (US11145333B2)

L. Dontcheva, K.A. Edmonds, **C. Fraser**, S. Klemmer. 2020. Facilitating contextual video searching using user interactions with interactive computing environments. (US11544322B2)

Pending:

H. Shin, **C.A. Fraser**, A. Agarwala, L. Dontcheva, J.R. Brandt, J. Popovic. 2022. Modifying a default video segmentation. (US20220301179A1)

S. Walker, H. Shin, **C.A. Fraser**, A. Agarwala, L. Dontcheva, J.R. Brandt, J. Popovic, J.O. Kim, J. Salamon, J. Wang, T.J. Ganter, X. Bai, D. Li. 2022. Snap point video segmentation identifying selection snap points for a video. (US20220076707A1)

S. Walker, H. Shin, **C.A. Fraser**, A. Agarwala, L. Dontcheva, J.R. Brandt, J. Popovic, J.O. Kim, J. Salamon, J. Wang, T.J. Ganter, X. Bai, D. Li. 2022. Interacting with semantic video segments through interactive tiles. (US20220076706A1)

S. Walker, H. Shin, **C.A. Fraser**, A. Agarwala, L. Dontcheva, J.R. Brandt, J. Popovic, J.O. Kim, J. Salamon, J. Wang, T.J. Ganter, X. Bai, D. Li. 2022. Thumbnail video segmentation identifying thumbnail locations for a video. (US20220076026A1)

H. Shin, **C.A. Fraser**, A. Agarwala, L. Dontcheva, J.R. Brandt, J. Popovic. 2022. Video search segmentation. (US20220076025A1)

T. Grossman, G. Fitzmaurice, **C.A. Fraser**. 2018. Automated distribution of subtask assignments to user devices. (US20180197131A1)

**HONOURS &
AWARDS**

Award for Excellence in Service/Leadership, CSE Department, UCSD	June 2019
Bouchet Graduate Honor Society Member	January 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
Jessie Macpherson Memorial Scholarship	Fall 2011
William Pearson Scott Scholarship	Fall 2010
Mary Ellen Carty Residence Scholarship	Fall 2009

**TEACHING &
MENTORSHIP**

Mentor, Early Research Scholars Program, UCSD **Fall 2018 – Spring 2019**
Mentored two undergraduate students in the Computer Science & Engineering department on a research project that resulted in a full paper at the UIST 2020 conference.

Mentor, GradWIC Mentorship Program, CSE Department, UCSD **Fall 2017 – Spring 2019**
Mentored three first-year graduate students in Computer Science & Engineering each year as part of the Graduate Women in Computing mentorship program.

Teaching Assistant, UCSD **Fall 2015**
CSE 216 / COGS 230 – Interaction Design Research
Managed course website, advised students, moderated discussions, and graded projects.

Teaching Assistant, University of Toronto **Winters 2012, 2013**
CSC148 – Introduction to Computer Science
Ran weekly labs, graded exams and assignments, held office hours, and proctored exam.

LEADERSHIP

Website Lead, Diversity, Equity & Inclusion Committee, UCSD **Fall 2017 – Winter 2020**
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. Managed content & design for [DEI website](#) as well as special event websites.

PhD Admissions Student Committee, UCSD **Fall 2017 – Spring 2019**
Co-leader of student committee for PhD admissions in the Computer Science and Engineering department.

Graduate Women in Computing, UCSD **Fall 2015 – Spring 2019**
President 2015-2017, Treasurer and Mentorship Committee member 2017-2019. Helped to grow GradWIC from a small informal group to a large organization with a variety of regular events and programs.

Faculty Hiring Committee, Design Lab, UCSD **Winter – Spring 2018**
Student representative for the Design Lab’s interdisciplinary faculty search. Coordinated student discussions and lunches with faculty candidates, and participated in hiring committee meetings.

Area Lead, CSE PhD Visit Day, UCSD **Spring 2015, Spring 2016**
Coordinated schedules for visiting prospective PhD students, helped plan department events.

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
Faculty of Arts & Science, University of Toronto

Fall 2012 – Spring 2013

**ACADEMIC
SERVICE**

Program Committees

CHI 2023 (Subcommittee: Blending Interaction: Engineering Interactive Systems & Tools)

UIST 2022

UIST 2021

Conference Organizing Committees

UIST 2021: Publicity Co-Chair

UIST 2020: Publicity Co-Chair

C&C 2019: Website Co-Chair

Reviewer

ISS: 2023

CHI: 2017, 2018, 2019, 2021, 2022

UIST: 2018, 2020

CSCW: 2018, 2019, 2021

C&C: 2021

CHI PLAY: 2017

Student Volunteer

CHI 2017

DIS 2016

INVITED TALKS

Carnegie Mellon SmashLab Seminar

Feb 2021

University of Washington DUB Seminar

Feb 2021

Stanford HCI Lunch

Feb 2021

**OTHER
EXPERIENCE**

Freelance Web Design & Development

Feb 2018 – present

Designed, built, and continue to manage website for Camp Wabikon (www.wabikon.com)

Web Developing Consultant

Nov 2013 – May 2014

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

Casual Employee, University of Toronto

Jun 2012 – Apr 2014

Web design and content for the Faculty of Arts & Science's "FAStanswers" website for first-year students.