Julia Cambre

jcambre@cs.cmu.edu   •   https://juliacambre.com

EDUCATION

PhD student in Human–Computer Interaction
Carnegie Mellon University
Advisor: Chinmay Kulkarni

2017 - present

Master of Science in Human–Computer Interaction
Carnegie Mellon University
Completed as part of the PhD Program

2017 - 2020

Bachelor of Science in Symbolic Systems
Stanford University
Graduated with distinction
Major Concentration: Human-Computer Interaction
Minor: Spanish

2010 - 2014

HONORS AND AWARDS

Adobe Research Fellowship, Adobe Research

2022

Presidential Fellowship, Human-Computer Interaction Institute, Carnegie
Mellon University

2019-2020

Program in Interdisciplinary Education Research (PIER) Fellowship
($170,000 over 4 years), Institute of Education Sciences (IES)

2017 - present

Phi Beta Kappa Society, Stanford University

2014

Best Undergraduate Essay, Senior Year Award, Department of Iberian and Latin
American Cultures, Stanford University

2014

Funding

G2   **Gift funding for voice research**
Mozilla Corporation

Awarded
$40,250
2020

G1   **Understanding users' preferences for and attributions of psychological
characteristics to voice-enabled devices**
Graduate Student Small Project Help, Carnegie Mellon University Graduate Student
Assembly and Office of the Provost

Awarded
$750
2019 - 2020

ACADEMIC PUBLICATIONS

Google Scholar: https://scholar.google.com/citations?user=vgIP6lEAAAAJ

An asterisk (*) indicates co-first authorship: these authors contributed equally to the work.

Refereed Conference Publications [stringently peer-reviewed]

P7   **Julia Cambre**, Alex C. Williams, Afsaneh Razi, Ian Bicking, Abraham Wallin, Janice Tsai, Chinmay Kulkarni,
Jofish Kaye. Firefox Voice: An Open and Extensible Voice Assistant Built Upon the Web. In *Proceedings of*

the 2021 CHI Conference on Human Factors in Computing Systems (CHI '21). Association for Computing Machinery, New York, NY, USA, Article 250, 1–18. DOI: https://doi.org/10.1145/3411764.3445409

P6   **Julia Cambre**, Samantha Reig, Queenie Kravitz, and Chinmay Kulkarni. "All Rise for the AI Director": Eliciting Possible Futures of Voice Technology through Story Completion. In *Proceedings of the 2020 ACM on Designing Interactive Systems Conference* (DIS '20), 2051–2064. https://doi.org/10.1145/3357236.3395479

P5   **Julia Cambre***, Jessica Colnago*, Jim Maddock*, Janice Tsai and Jofish Kaye. Choice of Voices: A Large-Scale Evaluation of Text-to-Speech Voice Quality for Long-Form Content. In *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems (CHI '20)*. 13 pages. DOI: https://doi.org/10.1145/3313831.3376789.

P4   **Julia Cambre** and Chinmay Kulkarni. One Voice Fits All? Social Implications and Research Challenges of Designing Voices for Smart Devices. In *Proceedings of the 22nd ACM Conference on Computer Supported Cooperative Work & Social Computing (CSCW '19)*. Article 223, 19 pages. DOI: https://doi.org/10.1145/3359325.

P3   **Julia Cambre***, Ying Liu, Rebecca Taylor, and Chinmay Kulkarni*. Vitro: Designing a Voice Assistant for the Scientific Lab Workplace. In *Proceedings of the 2019 ACM Conference on Designing Interactive Systems Conference (DIS '19)*, 1531–1542. DOI: https://doi.org/10.1145/3322276.3322298.

P2   **Julia Cambre**, Scott Klemmer, and Chinmay Kulkarni. 2018. Juxtapeer: Comparative Peer Review Yields Higher Quality Feedback and Promotes Deeper Reflection. In *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems (CHI '18)*. Paper 294, 13 pages. DOI: https://doi.org/10.1145/3173574.3173868.

P1   Chinmay Kulkarni, **Julia Cambre**, Yasmine Kotturi, Michael Bernstein, Scott Klemmer. 2015. Talkabout: Making Distance Matter with Small Groups in Massive Classes. In *Proceedings of the 18th ACM Conference on Computer Supported Cooperative Work & Social Computing (CSCW '15)*. DOI: https://doi.org/10.1145/2675133.2675166.

Extended Abstract (Late-Breaking Work) Publications [lightly peer-reviewed]

EA3   **Julia Cambre**, Chinmay Kulkarni, Scott Klemmer. 2017. Escaping the echo chamber: ideologically and geographically diverse discussions about politics. In *Proceedings of the 2017 CHI Conference Extended Abstracts on Human Factors in Computing Systems (CHI EA '17)*, 2423-2428.

EA2   **Julia Cambre**, Scott Klemmer. 2017. Standing on the Shoulders of Peers: Tournament-Style Remixing in Project Courses. In *Companion of the 2017 ACM Conference on Computer Supported Cooperative Work & Social Computing (CSCW '17)*, 155-158.

EA1   **Julia Cambre**, Chinmay Kulkarni, Michael S. Bernstein, and Scott Klemmer. 2014. Talkabout: small-group discussions in massive global classes. In *Proceedings of the first ACM conference on Learning @ scale conference* (L@S '14). Association for Computing Machinery, New York, NY, USA, 161–162. DOI:https://doi.org/10.1145/2556325.2567859

Workshop Publications [curated]

W3   Raphael Tang, Jaejun Lee, Afsaneh Razi, **Julia Cambre**, Ian Bicking, Jofish Kaye, and Jimmy Lin. Howl: A Deployed, Open-Source Wake Word Detection System. In *Proceedings of Second Workshop for NLP Open Source Software (NLP-OSS)*, 61–65. Association for Computational Linguistics, 2020.

W2   **Julia Cambre**, Chinmay Kulkarni. 2020. Methods and Tools for Prototyping Voice Interfaces. Workshop on *CUI@CHI: Mapping Grand Challenges for the Conversational User Interface Community*. CHI 2020.

W1   Alex C. Williams, **Julia Cambre**, Ian Bicking, Abraham Wallin, Janice Tsai, Jofish Kaye. 2020. Toward Voice-Assisted Browsers: A Preliminary Study with Firefox Voice. Workshop on *CUI@CHI: Mapping Grand Challenges for the Conversational User Interface Community*. CHI 2020.

INVITED TALKS

I1   **Invited Talk**   September 2014
Hasso Plattner Design Thinking Research Program Workshop (Potsdam, Germany)
Making distance matter with small groups in massive classes

SELECTED PRESS

Lifehacker, Firefox's New Voice Controls Make It As Good As a Smart Speaker   January 2020

TechRadar, Firefox challenges Chrome with full browser voice controls – here's how to try them   January 2020

Digital Trends, Mozilla Firefox's new add-on lets you surf the web with your voice   January 2020

Voicebot.ai, Mozilla Releases Firefox Voice Assistant Beta   January 2020

CNBC, Post-election therapy across Silicon Valley after Trump win   December 2016

Seeker, 'Mini U.N.' Online Platform Fights the Echo Chamber Effect   December 2016

Stanford Report, Stanford Researchers Use Diverse, Global Discussion Groups to Boost Online Learning Experience for Participants   May 2015

RESEARCH EXPERIENCE

Mozilla Corporation (San Francisco & Mountain View, CA)

Voice Experience Research Intern   May 2019 - August 2019
     May 2020 - August 2020

Prototyped novel forms of voice interaction for the Firefox browser, with the aim of making the web more open, accessible, and efficient for all. Developed a web extension—Firefox Voice—which allows users to control Firefox with voice commands, and conducted iterative user studies to evaluate its effectiveness. Code for the project is available open source at https://github.com/mozilla/firefox-voice.

Design Lab at UC San Diego (La Jolla, CA)

Research Assistant   September 2016 - June 2017

Worked with Scott Klemmer on two projects aimed at improving peer-graded assignments in massive online courses, and one initiative to promote civilized discourse following the 2016 U.S. presidential election.

Remix Projects: Prototyped a process that allowed learners to build upon the work of their peers, turning project-based courses into peer production activities.

Comparative Peer Review: Built a new peer review tool and studied the efficacy of performing peer evaluations through pairwise comparisons of submissions.

Discussions about the election: Extended the Talkabout platform to encourage political dialogue among diverse Americans.

Human-Computer Interaction Group at Stanford University (Stanford, CA)

Undergraduate Research Assistant June 2013 - June 2014

Worked with Chinmay Kulkarni, Yasmine Kotturi, Michael Bernstein, and Scott Klemmer to conceptualize, design, and implement Talkabout, a platform used by over 6,000 learners from 135 countries for coordinating and supporting small-group video discussions for students in Massive Open Online Courses.

Communication between Humans and Interactive Media (CHIMe) Lab (Stanford, CA)

Undergraduate Research Assistant Winter 2013

Worked with Cliff Nass and Key J. Lee on a study on promoting eco-friendly driving practices with a car simulator.

INDUSTRY EXPERIENCE

Coursera (Mountain View, CA)

Technical Account Manager September 2015 - August 2016

Partner Operations Specialist July 2014 - September 2015

Managed relationships with strategic university partners and provided timely platform support to English and Spanish-speaking business contacts, with a special focus on matters related to research, data sharing and security, and user privacy. As a Technical Account Manager, my book of accounts included top research institutions with over 150 combined courses, including the world's largest open online course. I also served as a liaison for Coursera's research community, helping to answer questions regarding research data and fulfill dozens of highly sensitive data export requests per month. During my tenure at Coursera, I attended and presented at workshops and conferences throughout the United States and abroad.

RESEARCH SUPERVISED OR CO-SUPERVISED

Online Educational Resources for Childhood Cancer Survivors and Family

Co-mentor with Sara Kingsley and Chinmay Kulkarni: Clara Wang Nov. 2019 - May 2020

Empowering instructors and scaling peer feedback with authoring tools for PeerStudio

Mentor: Sojeong Lee (REU Intern) May - Aug. 2018

TEACHING EXPERIENCE

Teaching Assistantships

Programming Usable Interfaces Fall 2020
with instructor Patrick Carrington

User-centered Research and Evaluation Fall 2019
with instructors Raelin Musuraca & Carol Smith

Other Teaching Experience

Volunteer Science Instructor, LABScI Program at Lucile Packard Children's Hospital: Developed and taught science labs designed for the unique needs of middle and high school students in a hospital classroom environment, and helped coordinate and organize outreach efforts. 2011 - 2014

Yearbook Advisor, Stanford Online High School: Led 8th - 12th grade student staff members in the creation of the school's first yearbook in an online classroom environment. Instructed journalistic skills in graphic design, copywriting, and photography through synchronous videoconferencing-based lectures and asynchronous learning communities on Edmodo. 2012 - 2013

Guest Lectures

Learning with Peers: Lessons Learned from Three Years of PeerStudio in *Tools for Online Learning*, taught by Chinmay Kulkarni at Carnegie Mellon University
March 2020

Designing Voice Interfaces in *Programming Usable Interfaces*, taught by Patrick Carrington at Carnegie Mellon University
December 2020

Voice Assistants in Manufacturing Contexts in *Making Your Product at Scale*, taught by Rebecca Taylor at Carnegie Mellon University
April 2021

ACADEMIC & PROFESSIONAL SERVICE

Reviewer

ACM Conference on Human Factors in Computing Systems (CHI)	2018 - 2022
ACM Conference on Computer Supported Cooperative Work & Social Computing (CSCW)	2018 - 2020
ACM Conference on Designing Interactive Systems (DIS)	2020
ACM Symposium on User Interface Software & Technology (UIST)	2020

Service

Program Committee, ACM Conference on Learning at Scale	2021
Ombudsperson, Representative for the PhD students of the Human-Computer Interaction Institute (HCII)	2019-2021
Workshops Jury, ACM Conference on Human Factors in Computing Systems (CHI)	2021
Organizing Board Member, Coursera Alumni Program	2019, 2020
Mentor, CMU AI Undergraduate Research Mentoring Program	2020
Student Coordinator, HCII Prospective PhD Student Open House	2019