

# TRICIA J. NGOON CURRICULUM VITAE

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PERSONAL INFORMATION	Tricia J. Ngoon Carnegie Mellon University tngoos@andrew.cmu.edu tngoos.github.io	
ACADEMIC APPOINTMENTS	<b>Carnegie Mellon University</b> , Pittsburgh, PA <i>Human-Computer Interaction Institute</i> <i>Postdoctoral Research Fellow</i>	2021-present
EDUCATION	<b>Ph.D., Cognitive Science</b> <i>University of California San Diego</i> Dissertation : “Interactive Attunement Catalyzes Creative Learning.” Committee : Scott Klemmer (Chair), Steven Dow, William Griswold, Philip Guo, Joy Kim, Caren Walker	June 2021
	<b>M.S., Cognitive Science</b> <i>University of California San Diego</i>	June 2018
	<b>B.A., Psychology with Honors</b> <i>University of California Berkeley</i>	May 2013
HONORS & AWARDS	<b>Research Fellowships &amp; Funding</b> NSF STEM Education Postdoctoral Research Fellowship (\$300,000) NSF Graduate Research Fellowship Honorable Mention UC Berkeley Regents’ & Chancellor’s Scholars Research Fellowship (\$3,000) UC Berkeley Summer Undergraduate Research Fellowship (\$3,000)	2022 2016 2012-2013 2012
	<b>Other Awards</b> ACM Designing Interactive Systems (DIS) Honorable Mention Paper Award (C.6) NSF Conference Travel Scholarships for Students to attending HCOMP/CI 2023 (\$27,263) Selected Rising Stars in EECS Attendee ACM Human Factors in Computing (CHI) Honorable Mention Paper Award (C.9) ACM Human Factors in Computing (CHI) Honorable Mention Paper Award (C.10) UC San Diego Competitive Edge Fellowship UC Berkeley Regents’ & Chancellor’s Scholarship	2023 2023 2019 2019 2018 2015 2010-2013
PRIOR EMPLOYMENT	<b>Adobe Research</b> , San Francisco, CA (Virtual) Research Intern	Summer 2020
	<b>Adobe Research</b> , San Francisco, CA Research Intern	Summer 2019
	<b>NASA Jet Propulsion Laboratory</b> , La Cañada Flintridge, CA User Experience Research Intern	Summer 2016
	<b>Stanford University School of Medicine</b> , Palo Alto, CA <i>Stanford Cognitive &amp; Systems Neuroscience Laboratory</i> Research Assistant	2013-2015
	<b>University of California Berkeley</b> , Berkeley, CA <i>Helen Wills Neuroscience Center</i> Research Assistant	Summer 2012
PUBLICATIONS	<b>Conference Papers (Peer Reviewed)</b> C.1 <b>Tricia J. Ngoon*</b> , Sushil S*, Angela Stewart, Ung-Sang Lee, Saranya Venkatramen, Neil Thawani, Prasenjit Mitra, Sherice Clarke, John Zimmerman, & Amy Ogan. Designing Conversation Support Tools to Visualize Classroom Discussion for Personalized Teacher Professional Development. Under review. (*indicates equal contribution)	

- C.2 Angela Stewart, **Tricia J. Ngoon**, Daniel Noh, Vaishnavi Gorantla, Stephanie Eristof, Ung-Sang Lee, Sherice Clarke, John Zimmerman, & Amy Ogan. "You Expect Me to Know What 40 Students are Doing?" Data as a Tool to Support Teacher Agency. Under review.
- C.3 Prasoon Patidar, **Tricia J. Ngoon**, John Zimmerman, Amy Ogan, & Yuvraj Agarwal. Enabling Student Behavior Attribution from Ambient Classroom Sensing Systems. Under Review.
- C.4 Vikram Cannanure, **Tricia J. Ngoon**, Kaja Jasinska, Sharon Wolf, Amy Ogan, & Tim Brown. Understanding the Longitudinal Impacts of a Chatbot to Facilitate a Virtual Community of Practice for Teachers in Rural Côte d'Ivoire. Under review.
- C.5 Prasoon Patidar, **Tricia J. Ngoon**, Francesca Xhakaj, Nikhil Behari, Neeharika Vogety, John Zimmerman, Amy Ogan, Chris Harrison, & Yuvraj Agarwal. Edulyze : Learning Analytics for Real-World Classrooms at Scale. Under review.
- C.6 **Tricia J. Ngoon**, David Kovalev, Prasoon Patidar, Yuvraj Agarwal, Chris Harrison, John Zimmerman, & Amy Ogan. 2023. "An instructor can [already] keep track of 30 students" : Students' Perceptions of Smart Classrooms for Improving Teaching and Their Beliefs about Teaching and Learning. In *ACM Conference on Designing Interactive Systems (DIS)*. **Honorable Mention Award (Top 5%)**
- C.7 Vikram Cannanure, Eloisa Avila, **Tricia J. Ngoon**, Yves Adj, Sharon Wolf, Kaja Jasinska, Tim Brown, and Amy Ogan. 2022. "We dream of climbing the ladder, for getting there, we have to do our job better" : Designing for Teacher Aspirations in Rural Côte d'Ivoire. In *ACM Conference on Computing Systems and Sustainable Societies (COMPASS) Proceedings*, 122-138.
- C.8 **Tricia J. Ngoon**, Joy O. Kim, & Scott Klemmer. 2021. Shöwn : Adaptive Conceptual Guidance Aids Example Use in Creative Tasks. In *ACM Designing Interactive Systems Conference (DIS) Proceedings*, 1834-1845.
- C.9 C. Ailie Fraser, **Tricia J. Ngoon**, Mira Dontcheva, & Scott Klemmer. 2019. RePlay : Contextually Presenting Learning Videos across Software Applications. In *ACM Human Factors in Computing Conference (CHI) Proceedings*, 1-13. **Honorable Mention Award (Top 5%)**
- C.10 **Tricia J. Ngoon\***, C. Ailie Fraser\*, Ariel Weingarten, Mira Dontcheva, & Scott Klemmer. 2018. Interactive Guidance Techniques for Improving Creative Feedback. In *ACM Human Factors in Computing Conference (CHI) Proceedings*, 1-11. **Honorable Mention Award (Top 5%)** (\*indicates equal contribution)

#### Journal Papers (Peer Reviewed)

- J.1 **Tricia J. Ngoon**, Angela Stewart, Francesca Xhakaj, John Zimmerman, & Amy Ogan. Opportunities and Barriers for Professional Informatics : Systems that Monitor and Provide Feedback on Work. Under review.
- J.2 Christian Battista, Tanya M. Evans, **Tricia J. Ngoon**, Tianwen Chen, Lang Chen, John Kochalka, & Vinod Menon. 2018. Mechanisms of Interactive Specialization and Emergence of Functional Brain Circuits Supporting Cognitive Development in Children. *Nature Partner Journals Science of Learning*, 3(1).
- J.3 Tanya M. Evans, John Kochalka, **Tricia J. Ngoon**, Sarah Wu, Shaozheng Qin, Christian Battista, & Vinod Menon. 2015. Brain Structural Integrity and Intrinsic Functional Connectivity Forecasts 6-Year Longitudinal Growth in Children's Numerical Abilities. *Journal of Neuroscience*, 35(33). 11743-11750.

#### Extended Abstracts & Other Publications (Lightly Reviewed)

- E.1 **Tricia J. Ngoon**, Vivian Leung, Micah Goldwater, & Caren M. Walker. 2022. Exploration as a Learning Strategy to Support Children's Pattern Learning. In the *Cognitive Science Society Conference Proceedings*.
- E.2 **Tricia J. Ngoon**, Vivian Leung, & Caren Walker. 2022. How Exploration Supports Children's Pattern Learning. Poster at the *Cognitive Development Society Conference*.
- E.3 **Tricia J. Ngoon**. 2021. Interactive Attunement Catalyzes Creative Learning. *UC San Diego PhD Dissertation*.
- E.4 **Tricia J. Ngoon**, Caren M. Walker, & Scott Klemmer. 2019. The Dark Side of Satisficing : Setting the Temperature of Creative Thinking. In *ACM Creativity & Cognition Conference (C&C) Proceedings*, 591-596.
- E.5 **Tricia J. Ngoon**. 2019. Overcoming Satisficing : Scaffolds for Amplifying Creativity. Graduate Student Symposium abstract in *ACM Creativity & Cognition Conference (C&C) Proceedings*, 670-674.
- E.6 Samuel Lau, **Tricia J. Ngoon**, Vineet Pandey, & Scott Klemmer. 2019. Experiment Reconstruction Reduces Fixation on Surface Details of Explanations. In *ACM Creativity & Cognition Conference (C&C) Proceedings*, 578-582.
- E.7 **Tricia J. Ngoon**. 2019. Inventive Scaffolds Catalyze Creative Learning. Doctoral Consortium in *ACM Human Factors in Computing Conference (CHI) Proceedings*, 1-5.
- E.8 C. Ailie Fraser, **Tricia J. Ngoon**, Ariel Weingarten, Mira Dontcheva, & Scott Klemmer. 2017. CritiqueKit : A Mixed-Initiative, Real-Time Interface for Improving Feedback. In *ACM User Interface Software & Technology Conference (UIST) Companion*, 7-9.

- E.9 **Tricia J. Ngoon**, Alexander Gamero-Garrido, & Scott Klemmer. 2016. Supporting Peer Instruction through Evidence-Based Design of Online Instructional Templates. In *ACM Learning at Scale Conference (L@S) Proceedings*, 301-304.
- E.10 **Tricia J. Ngoon**, Rachel Chen, Amit Deutsch, & Sean Lip. 2016. Oppia : A Community of Peer Learners to Make Conversational Learning Experiences. In *ACM Computer-Supported Cooperative Work & Social Computing (CSCW) Companion*.

## LECTURES AND PRESENTATIONS

### Invited Talks

<i>Pennsylvania State University College of Information Science &amp; Technology Seminar</i> (State College, PA)	February 2023
<i>University of Pittsburgh Learning Research &amp; Development Center Seminar</i> (Pittsburgh, PA)	April 2022
<i>Carnegie Mellon University Human-Computer Interaction Institute Seminar</i> (Pittsburgh, PA)	January 2022
<i>University of Wisconsin–Madison Human-Computer Interaction Seminar</i> (Virtual)	November 2020
<i>UC San Diego Cognitive Science Students Association Speaker Series</i> (La Jolla, CA)	February 2020
<i>UC Berkeley Institute of Design Seminar</i> (Berkeley, CA)	September 2019
<i>Stanford University Human-Computer Interaction Seminar</i> (Palo Alto, CA)	August 2019
<i>UC San Diego Cognition at the Shore Speaker Series</i> (La Jolla, CA)	March 2019

### Other Presentations

<i>OMG SysML Working Group Meeting</i> (Virtual)	September 2016
<i>Harvard Undergraduate Research Conference</i> (Cambridge, MA)	January 2013
<i>UC Berkeley Summer Undergraduate Research Fellows Conference</i> (Berkeley, CA)	August 2012

## TEACHING

### Instructor of Record

*DSGN90 : Design Seminar on Web Programming*, UC San Diego (Summer 2018)

### Teaching Assistant

*DSGN1 : The Design of Everyday Things*, Lead Teaching Assistant, UC San Diego (Winter 2019-2021, Fall 2019-2020)

*COGS120/CSE170 : Interaction Design*, Lead Teaching Assistant, UC San Diego (Winter 2016-2017, Spring 2018)

*COGS112 : Psychology of Humor*, Lead Teaching Assistant, UC San Diego (Spring 2020)

*COGS17 : Neurobiology of Cognition*, UC San Diego (Summer 2017)

*COGS122 : Interaction Design Startup Studio*, UC San Diego (Spring 2016)

*COGS123 : Social Computing*, UC San Diego (Spring 2016)

### Guest Lecturer

*INFSCI27385 : The Machines are Taking Over ? Power, Identity, and the Social Impact of AI*, University of

Pittsburgh (Fall 2023)

*COGS17 : Neurobiology of Cognition*, UC San Diego (Summer 2017)

SUPERVISION

**Mentorship**

Vikram Cannanure Kamath, PhD Student	2021-present
Prasoon Patidar, PhD Student	2021-present
Luijia (Leslie) Yan, Research Assistant	2022, 2023-present
Yu (Lucia) Fang, Undergraduate Research Assistant	2022-present
Aastha Patel, Master's Student	2022-2023
Prithika Acharya, Master's Student	2022
Jinfan (Sara) Bai, Master's Student	2022
Michelle Lee, Research Assistant	2018-2019
Julia Gersey, Undergraduate Research Assistant	2023
Xinyi (Angela) Gui, Undergraduate Research Assistant	2023
Haley Litt, Undergraduate Research Assistant	2021-2023
Banso Nguyen, Undergraduate Research Assistant	2021-2022
Longjie Guo, Undergraduate Research Assistant	2022
David Kovalev, Undergraduate Research Assistant	2022
Adriana Poznanski, Undergraduate Research Assistant	2022
Vivian Leung, Undergraduate Research Assistant	2018-2021
Nicolas La Polla, Undergraduate Research Assistant	2018-2019

SERVICE

**Professional Service**

Publications Co-Chair, ACM Creativity & Cognition Conference	2024
Panelist, NSF Program	2023
Scholarships Co-Chair, AAAI Conference on Human Computation & Crowdsourcing/	
ACM Collective Intelligence Conference	2023
Panelist, NSF Program	2022
Program Committee Member, ACM Creativity & Cognition Conference	2021, 2023
Student Volunteer Co-Chair, ACM Creativity & Cognition Conference	2019

**Other Service**

Admissions Committee Member, CMU HCII Research Experiences for Undergraduates (REU)	2023
Head Teaching Assistant, UC San Diego Cognitive Science Department	2019-2021
Graduate Social Events Coordinator, UC San Diego Cognitive Science Department	2017-2019
K-12 Outreach Coordinator, UC San Diego Graduate Women in Computing	2018
Events Coordinator, UC San Diego Graduate Women in Computing	2017-2018
Graduate Student Representative, UC San Diego Cognitive Science Department	2016-2017
External Vice-President, UC Berkeley Regents' & Chancellor's Scholars Association	2012-2013
Faculty Committee Co-Chair, UC Berkeley Regents' & Chancellor's Scholars Association	2011-2012

**Reviewer (Alphabetical Order)**

ACM Computer-Supported Cooperative Work & Social Computing (CSCW) Conference, ACM Creativity & Cognition (C&C) Conference, ACM Designing Interactive Systems (DIS) Conference, ACM Human Factors in Computing (CHI) Conference, ACM Interactive, Mobile, Wearable, & Ubiquitous Computing (IMWUT) Journal, American Educational Research Association (AERA) Conference, Artificial Intelligence & Education (AIED) Conference, Cognitive Science Society Conference, International Society of Learning Sciences (ISLS) Conference