Tricia J. Ngoon Curriculum Vitae

PERSONAL INFORMATION	Tricia J. Ngoon Carnegie Mellon University tngoon@andrew.cmu.edu tngoon.github.io

ACADEMIC APPOINTMENTS

Carnegie Mellon University, Pittsburgh, PA — *2021-present*
Human-Computer Interaction Institute
Postdoctoral Research Fellow

EDUCATION

Ph.D., Cognitive Science — *June 2021*
University of California San Diego
Dissertation : "Interactive Attunement Catalyzes Creative Learning."
Committee : Scott Klemmer (Chair), Steven Dow, William Griswold, Philip Guo, Joy Kim, Caren Walker

M.S., Cognitive Science — *June 2018*
University of California San Diego

B.A., Psychology with Honors — *May 2013*
University of California Berkeley

HONORS & AWARDS

Research Fellowships & Funding

NSF STEM Education Postdoctoral Research Fellowship ($300,000)	*2022*
NSF Graduate Research Fellowship Honorable Mention	*2016*
UC Berkeley Regents' & Chancellor's Scholars Research Fellowship ($3,000)	*2012-2013*
UC Berkeley Summer Undergraduate Research Fellowship ($3,000)	*2012*

Other Awards

ACM Designing Interactive Systems (DIS) Honorable Mention Paper Award (C.6)	*2023*
NSF Conference Travel Scholarships for Students to attending HCOMP/CI 2023 ($27,263)	*2023*
Selected Rising Stars in EECS Attendee	*2019*
ACM Human Factors in Computing (CHI) Honorable Mention Paper Award (C.9)	*2019*
ACM Human Factors in Computing (CHI) Honorable Mention Paper Award (C.10)	*2018*
UC San Diego Competitive Edge Fellowship	*2015*
UC Berkeley Regents' & Chancellor's Scholarship	*2010-2013*

PRIOR EMPLOYMENT

Adobe Research, San Francisco, CA (Virtual) — *Summer 2020*
Research Intern

Adobe Research, San Francisco, CA — *Summer 2019*
Research Intern

NASA Jet Propulsion Laboratory, La Cañada Flintridge, CA — *Summer 2016*
User Experience Research Intern

Stanford University School of Medicine, Palo Alto, CA — *2013-2015*
Stanford Cognitive & Systems Neuroscience Laboratory
Research Assistant

University of California Berkeley, Berkeley, CA — *Summer 2012*
Helen Wills Neuroscience Center
Research Assistant

PUBLICATIONS

Conference Papers (Peer Reviewed)

C.1 **Tricia J. Ngoon***, 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. In Prep. (*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. In prep.

C.3 Prasoon Patidar, **Tricia J. Ngoon**, John Zimmerman, Amy Ogan, Chris Harrison, & Yuvraj Agarwal. Edulyze : Learning Analytics for Real-World Classrooms at Scale. In prep.

C.4 Vikram Cannanure, **Tricia J. Ngoon**, Kaja Jasinska, Sharon Wolf, Amy Ogan, & Tim Brown. A Chatbot-facilitated Virtual Community of Practice improves Teacher Agency, Self-efficacy, and Knowledge in Rural Ivory Coast. In Prep.

C.5 Prasoon Patidar, **Tricia J. Ngoon**, Franceska 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 Adji, 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, Franceska 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

Pennsylvania State University College of Information Science & Technology Seminar
(State College, PA)   *February 2023*

University of Pittsburgh Learning Research & Development Center Seminar
(Pittsburgh, PA)   *April 2022*

Carnegie Mellon University Human-Computer Interaction Institute Seminar
(Pittsburgh, PA)   *January 2022*

University of Wisconsin–Madison Human-Computer Interaction Seminar (Virtual)   *November 2020*

UC San Diego Cognitive Science Students Association Speaker Series (La Jolla, CA)   *February 2020*

UC Berkeley Institute of Design Seminar (Berkeley, CA)   *September 2019*

Stanford University Human-Computer Interaction Seminar (Palo Alto, CA)   *August 2019*

UC San Diego Cognition at the Shore Speaker Series (La Jolla, CA)   *March 2019*

Other Presentations
OMG SysML Working Group Meeting (Virtual)   *September 2016*

Harvard Undergraduate Research Conference (Cambridge, MA)   *January 2013*

UC Berkeley Summer Undergraduate Research Fellows Conference (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 Congition, 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