TRICIA J. NGOON CURRICULUM VITAE

Personal Information Tricia J. Ngoon TeachFX, Inc.

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tngoon.github.io

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 Thesis: "The Efficacy of Verbal Retrieval Practice: Implications for Student Learning."

Thesis Advisor: Art P. Shimamura

Honors & Awards

Research Fellowships & Funding

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)
2012

Other Awards

ACM Designing Interactive Systems (DIS) Honorable Mention Paper Award (C.3)

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.6)

ACM Human Factors in Computing (CHI) Honorable Mention Paper Award (C.7)

UC San Diego Competitive Edge Fellowship

UC Berkeley Regents' & Chancellor's Scholarship

2010-2013

Experience

TeachFX, Remote

2024-Present

Research Scientist

Carnegie Mellon University, Pittsburgh, PA

2021-2024

Postdoctoral Research Fellow

Adobe Research, San Francisco, CA

Summer 2020, 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

2011-2013

Helen Wills Neuroscience Center

Research Assistant

Publications

Conference Papers (Peer Reviewed)

- C.1 Tricia J. Ngoon, Vikram Cannanure, Kaja Jasinska, Sharon Wolf, & Amy Ogan. "I believe I did not preach into the desert": Opportunities & Challenges in Scaling Teacher Mentorship through Mobile Technology in Rural Côte d'Ivoire. Under review.
- C.2 Tricia J. Ngoon, S Sushil, Angela Stewart, Ung-Sang Lee, Saranya Venkatramen, Neil Thawani, Prasenjit Mitra, Sherice Clarke, John Zimmerman, & Amy Ogan. 2024. ClassInSight: Designing Conversional Conversional

- sation Support Tools to Visualize Classroom Discussion for Personalized Teacher Professional Development. To appear in ACM Human Factors in Computing (CHI'24) Proceedings.
- C.3 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 Designing Interactive Systems (DIS'23) Proceedings, 1277-1292. Honorable Mention Award (Top 5%)
- C.4 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 Computing Systems and Sustainable Societies (COMPASS'22) Proceedings, 122-138.
- C.5 Tricia J. Ngoon, Joy O. Kim, & Scott Klemmer. 2021. Shöwn: Adaptive Conceptual Guidance Aids Example Use in Creative Tasks. In ACM Designing Interactive Systems (DIS'21) Proceedings, 1834-1845.
- C.6 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 (CHI'19) Proceedings, 1-13. Honorable Mention Award (Top 5%)
- C.7 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'18) Proceedings, 1-11. Honorable Mention Award (Top 5%) (*indicates equal contribution)

Journal Papers (Peer Reviewed)

- J.1 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.
- J.2 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. To appear in ACM Computing Systems and Sustainable Societies (COMPASS'24) Journal.
- J.3 Prasoon Patidar, **Tricia J. Ngoon**, John Zimmerman, Amy Ogan, & Yuvraj Agarwal. Enabling Student Behavior Attribution from Ambient Classroom Sensing Systems. To appear in *ACM Interactive*, *Mobile*, *Wearable*, & *Ubiquitous Technologies* (IMWUT'24) Journal.
- J.4 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.5 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 & Posters (Lightly Reviewed)

- E.1 **Tricia J. Ngoon**, Prasoon Patidar, Amy Ogan, Chris Harrison, Yuvraj Agarwal, & John Zimmerman. 2022. Professional Informatics: Personalized, Data-Driven Professional Development. Workshop paper at *ACM Human Factors in Computing (CHI'22)*.
- E.2 **Tricia J. Ngoon**, Vivian Leung, Micah Goldwater, & Caren M. Walker. 2022. Exploration as a Learning Strategy to Support Children's Pattern Learning. Poster at *Cognitive Science Society Conference*.
- E.3 **Tricia J. Ngoon**, Vivian Leung, & Caren Walker. 2022. How Exploration Supports Children's Pattern Learning. Poster at the *Cognitive Development Society (CDS) Conference*.
- E.4 Tricia J. Ngoon. 2021. Interactive Attunement Catalyzes Creative Learning. UC San Diego PhD Dissertation.
- E.5 **Tricia J. Ngoon**, Caren M. Walker, & Scott Klemmer. 2019. The Dark Side of Satisficing: Setting the Temperature of Creative Thinking. In *ACM Creativity & Cognition (C&C'19) Proceedings*, 591-596.
- E.6 **Tricia J. Ngoon**. 2019. Overcoming Satisficing: Scaffolds for Amplifying Creativity. Graduate Student Symposium abstract in *ACM Creativity & Cognition Conference (C&C'19) Proceedings*, 670-674.
- E.7 Samuel Lau, **Tricia J. Ngoon**, Vineet Pandey, & Scott Klemmer. 2019. Experiment Reconstruction Reduces Fixation on Surface Details of Explanations. In *ACM Conference on Creativity & Cognition Conference (C&C'19) 2019 Proceedings*, 578-582.
- E.8 **Tricia J. Ngoon**. 2019. Inventive Scaffolds Catalyze Creative Learning. Doctoral Consortium in ACM Human Factors in Computing Conference (CHI'19) Proceedings, 1-5.
- E.9 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'17) Companion*, 7-9.

- E.10 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'16) Proceedings, 301-304.
- E.11 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'16) 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 November 2020 University of Wisconsin-Madison Human-Computer Interaction Seminar (Virtual) 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 March 2019

Teaching

Instructor of Record

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

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

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	2021-2024
Prasoon Patidar, PhD Student	2021-2024
Luijia (Leslie) Yan, Research Assistant	2022-2024

Yu (Lucia) Fang, Undergraduate Research Assistant	2022-2024
Julia Gersey, Undergraduate Research Assistant	2023
Xinyi (Angela) Gui, Undergraduate Research Assistant	2023
Aastha Patel, Master's Student	2022-2023
Haley Litt, Undergraduate Research Assistant	2021-2023
Prithika Acharya, Master's Student	2022
Jinfan (Sara) Bai, Master's Student	2022
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
Michelle Lee, Research Assistant	2018-2019
Professional Service	
Panelist, NSF Program	2024
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
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Other Service	

Service

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

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) ${\bf Conference}$