

# Tricia Ngoon

## MIXED-METHODS RESEARCHER IN LEARNING SCIENCE & HUMAN-COMPUTER INTERACTION

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### HIGHLIGHTS

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- 10+ years experience in qualitative and quantitative research in the educational and creative technology industries.
- Knowledgeable of end-to-end UX research activities, such as study design, recruitment, moderation, data analysis, and writing.
- Collected and analyzed data from 1,000+ participants with qualitative and quantitative methods, such as in-depth in-person and video interviews, focus groups, co-design, surveys, and experimental A/B testing.
- Received 3 publication rewards (top 5% of papers) from top-tier human-computer interaction venues.

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### RELEVANT EXPERIENCE

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#### RESEARCH SCIENTIST

1/2024 - 11/2024

TeachFX, Remote. *TeachFX is a \$10 million Series A-funded educational technology startup with 2,000+ teacher users leading the way in automated feedback tools for teachers.*

- As the first research scientist at the organization, executed comprehensive research tasks, such as user interviews, surveys, co-design, and thematic analysis within the Strategic Initiatives department.
- Led qualitative user interviews with 50+ K-12 educators and presented findings to internal stakeholders and leadership, influencing actionable product redesign decisions and increased usage by 20%.
- Authored 4 research reports for philanthropic grants totaling \$2 million+ to communicate project activities and findings to external stakeholders and funders.
- Led participant recruitment, engagement, and data management for a large-scale randomized controlled trial with 200+ anticipated teacher users.

#### POSTDOCTORAL RESEARCH SCIENTIST

06/2021 - 03/2024

Carnegie Mellon University, Pittsburgh, PA. *Carnegie Mellon University (CMU) spends more than \$400 million on research and is ranked #21 in the nation and #2 for Computer Science.*

- Directed multi-year research and design initiatives in the Human-Computer Interaction Institute for 3 smart classroom technologies for higher education instructors, middle school science teachers, and grade 4-6 teachers in rural Cote d'Ivoire with 400+ users.
- Led end-to-end comprehensive research activities such as user interviews, co-design sessions, and surveys with 100+ K-12 teachers, college instructors, and undergraduate students, resulting in 5 peer-reviewed publications and 6 presentations to external stakeholders.
- Hired and mentored 6 junior researchers in study design, data collection, user research methods, and data analysis.
- Reviewed 20+ proposals for 4 federal programs related to racial equity, STEM education participation, and emerging educational technologies, contribution to the allocation of \$3 million+.

#### LEAD RESEARCHER & EDUCATOR

06/2015 - 06/2021

University of California San Diego, La Jolla, CA. *University of California San Diego (UCSD) spends more than \$1 billion on grant-funded research and is ranked the 6th best public university in the nation.*

- Conducted mixed-methods research tasks, such as study design, literature reviews, user interviews, surveys, prototyping, and experimental A/B testing with 300+ users, resulting in 3 peer-reviewed publications in top HCI conferences, including 2 Honorable Mention awards, and 10+ presentations to stakeholders.
- Prototyped and deployed 3 web applications for providing adaptive suggestions on how to give better feedback, improving quality of feedback by 30%.
- Scaled recruitment to 250+ child participants by adapting an in-person experiment to age-appropriate digital tasks and experimental stimuli in response to the pandemic.

- Mentored and trained 50+ junior researchers and teaching assistants in rigorous UX research methods and effective teaching practices.

## RESEARCH INTERN

06/2019 - 09/2019, 06/2020 - 09/2020

Adobe Research, San Francisco, CA & Remote. *Adobe is the premier creative technology software company, with \$20 billion+ in revenue. Adobe Research is Adobe's R&D division, spending \$1 billion+ on R&D efforts.*

- Across 2 internships, scoped two 10-week research plans and conducted end-to-end mixed-methods research activities in-person and remotely such as study design, think-aloud sessions, participant observations, focus groups, prototyping, and A/B testing, presenting findings in 2 seminars to technical and non-technical stakeholders and publishing a peer-reviewed publication in a top HCI conference.
- Recruited and conducted participant observations and focus groups with 35+ novice and professional illustrators artists to uncover pain points for novices in expressing their ideas.
- Led A/B testing and think-alouds with 24 comic artists, evaluating a wizard-of-oz prototype's impacts on creativity and improving overall creative outcomes by 15%, resulting in a peer-reviewed publication.
- Developed an online web application and conducted crowdsourced A/B testing with 396 users.

## UX RESEARCH INTERN

06/2016 - 09/2016

NASA Jet Propulsion Laboratory, La Cañada Flintridge, CA. *NASA's Jet Propulsion Laboratory (JPL) is a \$2 billion+ federally-funded R&D center focused on the design and operation of robotic space exploration missions.*

- Supported the Computer-Aided Engineering team in improving internal performance monitoring processes for 100+ engineers at JPL, resulting in 2 presentations to internal and external stakeholders.
- Conducted heuristic evaluation of current performance monitoring tools, uncovering pain points and opportunities for redesign.
- Prototyped a performance monitoring dashboard informed by personas, storyboards, and user interviews with 8 engineers, leading to widespread adoption by 3 engineering teams of 10+ engineers at JPL.
- Incorporated user-centered design into the agile software development process and streamlined navigability of resources through design documentation.

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## EDUCATION

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**Ph.D, Cognitive Science**

**2015 - 2021**

**University of California, San Diego**

**B.A., Psychology**

**2010 - 2013**

**University of California, Berkeley**

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## HOBBIES & ACHIEVEMENTS

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- Awarded \$325,000+ in federal research funding for STEM education and HCI research.
- Selected as a Rising Start in Electrical Engineering & Computer Science in 2019.
- Member of the Association of Computing Machinery, Cognitive Science Society, and Artificial Intelligence in Education.
- Boxing coach at Level Red Boxing in Pittsburgh and volunteer with the Humane Animal Rescue.

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