

# TRICIA NGOON, PH.D

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## PROFESSIONAL SUMMARY

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Learning science and human-computer interaction researcher with 12 years of leading and managing collaborative, mixed-methods UX research efforts in creativity support and educational technology to create more equitable learning environments. Expertise in quantitative and qualitative approaches and communication of actionable findings, with 8 publications and 15 invited talks.

## EXPERIENCE

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### Postdoctoral Research Scientist

Carnegie Mellon University

Jun 2021 – Present

*Pittsburgh, PA*

- Lead design and research efforts for 3 digital technologies to improve teaching in K-12, undergraduate, and international contexts with 400+ teacher users.
- Conducted user interviews, co-design sessions, and surveys with 50+ teachers, college instructors and undergraduate students, resulting in 2 peer-reviewed publications and an Honorable Mention publication award.
- Communicated research vision and strategy in a successful \$300,000 national science foundation grant.

### Mixed-Methods Ph.D Researcher

UC San Diego

Jun 2015 – Jun 2021

*La Jolla, CA*

- Designed and deployed 4 interactive prototypes to support early exploratory thinking with 300+ users.
- Evaluated the usability and effectiveness of learning technologies through A/B testing, user interviews, and surveys in 3 peer-reviewed publications and 2 Honorable Mention publication awards.
- Mentored and trained 6 research assistants in research design, data collection, and data analysis.

### Teaching Associate & Training Facilitator

UC San Diego Cognitive Science Department

Dec 2016 – Dec 2021

*La Jolla, CA*

- Created instructional materials and led group discussions for 12 design and computer science courses, with 85% positive teaching evaluations.
- Trained 50+ teaching assistants in the department in active learning practices and effective feedback.
- Designed a new web programming seminar class, with materials adapted for a 250-person engineering course.

### Research Science Intern

Adobe Research

Jun 2019 – Sept 2019, Jun 2020 – Sept 2020

*San Francisco, CA*

- Conducted interviews, focus groups, think-aloud sessions, and A/B testing to design 2 novel prototypes for improving collaboration and drawing with 50+ users.
- Created and executed a 5-week plan to complete prototype design and evaluation, resulting in a peer-reviewed publication at a top conference in the field.
- Communicated findings concisely in 2 invited seminar talks.

### UX Research Intern

NASA Jet Propulsion Laboratory

Jun 2016 – Sept 2016

*La Cañada Flintridge, CA*

- Created personas, storyboards, and prototypes to improve internal performance monitoring tools.
- Utilized Agile design methods with multiple teams to develop transferable insights, resulting in a web prototype actively used by 3 engineering teams.
- Synthesized findings and process in design documentation to create sustainable methods, leading to increased adoption of human-centered design processes lab-wide.

### Research Assistant

Stanford University School of Medicine

Jun 2013 – Jun 2015

*Palo Alto, CA*

- Led efforts in recruiting, experimental design, and data collection of 100+ child participants to examine the neurological effects of math tutoring, resulting in 2 peer-reviewed journal publications.
- Created a Python script to improve the efficiency of data quality control by 150%.
- Developed a web version of math games to assess math abilities, reaching 200+ children without access to in-person neuropsychological testing.

## EDUCATION

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<b>Ph.D in Cognitive Science</b> , University of California, San Diego	June 2021
<b>B.A. in Psychology with Honors</b> , University of California, Berkeley	May 2013

## SKILLS

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<b>Research Skills</b>	Data analysis, Experimental design, A/B testing, Usability testing, Interviews, Survey design
<b>Tools</b>	RStudio, Python, HTML/CSS, JavaScript, Qualtrics, Dedoose, Figma, Microsoft Office, Miro
<b>Other</b>	Writing, Public speaking, Project management

## AWARDS & EXTRA-CURRICULAR ACTIVITIES

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- National Science Foundation STEM Education Postdoctoral Research Fellowship
- 3 Honorable Mention publication awards from top-tier human-computer interaction research conferences
- Volunteer with the Humane Animal Rescue of Pittsburgh and avid boxer