

Holly Huey

hollyhuey.github.io | 360.544.2499 | hhuey@ucsd.edu

[linkedin](#) | [google scholar](#)

Applied cognitive scientist using large-scale crowdsourcing to benchmark human behavior & communication patterns. My research aims to improve human-centered generative technologies and computational models related to: text-to-image-generation, audience design, object identification, and semantic segmentation.

Experience

Graduate Research Scientist | University of California San Diego

Sept 2019 – present, San Diego, CA (expected graduation June 2024)

- Lead end-to-end research of 20+ custom coded online experiments, leveraging large-scale crowdsourcing (mTurk, Prolific, SONA), computer vision, & machine learning techniques to analyze human content creation
- Perform statistical analyses (mixed-effects models, multilevel regression, GLM, ANOVA) and generate data visualizations (ggplot, seaborn) for talks & publications
- Collaborate with cross-functional teams spanning multiple universities to investigate object recognition & abstraction across large-scale datasets
- Teach undergrad classes of 300+ students covering statistics (using R), cognitive psychology, and child development
- Communicated findings to scientific and lay audiences through 8 peer-reviewed publications, 4 posters, and 10 domestic/international talks

Research Scientist/Engineer Intern | Adobe

June 2023 – present, San Francisco/remote

- Led qualitative user study investigating YouTube content creators' editing styles & interest in using generative technologies (e.g., Firefly ChatGPT)
 - Conducted 1:1 video interviews after double screening, designed discussion guide, & presented recommendations to engineering team for future feature adaptations
- Lead a quantitative behavioral study using large-scale crowdsourcing to investigate how creators' goals impact their video & b-roll styles
- Perform comparative analysis of video content creators' editing preferences against automatic video editing models to help fine-tune computational algorithms

Lead Researcher & Lab Manager | New York University

July 2017 – Aug 2019, New York City, NY

- Led research and designed 3D animations for 12+ studies investigating navigation, object recognition, & symbolic reasoning in children & adults
- Mentored 8 honors thesis & grant-sponsored students & trained teams of 10-15 researchers. (Launched workshop series to increase computational literacy & research design by teaching Adobe CC, Blender, and R)

Research Assistant | MIT & Harvard

Oct 2016 – June 2017, Boston, MA

- Designed 3D animations & conducted 3 visuoperceptual studies using eye-tracking to probe interpretation of physical events
- Conducted 7 pro-social behavior studies to investigate children's causal inferences about other agents' knowledge, behavior, and competence

UX Writer & Product Content Writer (Contractor) | Talla, AI chatbot

Oct 2016 – May 2017, Boston, MA

- Analyzed user responses, wrote 20+ workflow templates, e-books, & articles about the advantages and risks of using AI automation, and conducted comparative analyses of competitor products

Education

University of California San Diego

Ph.D., Experimental Psychology | June 2024

M.A., Experimental Psychology | Feb 2022

St. John's College (Annapolis, MD)

B.A., Liberal Arts | May 2016

Dual major: History of Math & Sciences, Philosophy

Dual minor: Comparative Literature, Classics

Skills

Quantitative & Qualitative Methods

- human factors • prototyping • user interviews
- heuristic evaluation • gamification • A/B testing
- behavioral benchmarking • survey design
- cross-cultural & developmental evaluations

Experimental Programming & Software

- javascript • HTML • CSS • jsPsych • node.js • unix
- github • latex • matlab • mongoDB • AWS

Statistical Programming & Analysis

- R (tidyverse) • Python (pandas, numpy)
- model fitting & comparisons • time series analysis
- hypothesis testing • population comparison

Design Skills

- Adobe CC • Blender 3D modeling & animation
- Unity • video & audio editing • sketching

Communication

- data visualization • scientific writing/social media
- research talks • workshop creation & organization

Selected Publications ^{*shared authorship}

Sketching as Benchmarking Generative Behavior

Mukherjee*, **Huey***, Lu*, Vinker, Aguina-Kang, Shamir, & Fan. (2023). SEVA: Leveraging sketches to evaluate alignment between human and machine visual abstraction.

NeurIPS Datasets & Benchmarks Track. [link](#)

Huey, Lu, Walker, & Fan. (2023). Explanatory drawings prioritize functional properties at the expense of visual fidelity. *Cognition*. [link](#)

Semantic Structure in Visualizations

Huey*, Long*, Yang, George, & Fan. (2022). Developmental changes in the semantic part structure of drawn objects. *CogSci*. [link](#)

Language & Pragmatics

Aboody, **Huey**, & Jara-Ettinger. (2022). Preschoolers decide who is knowledgeable, who to inform, and who to trust via a causal understanding of how knowledge relates to action. *Cognition*. [link](#)

Jara-Ettinger, Floyd, **Huey**, Tenenbaum, & Schulz. (2020). Social pragmatics: Preschoolers rely on commonsense psychology to resolve referential underspecification. *Child Dev*. [link](#)