# Justin Yang

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Education	University of California San Diego B.S. in Cognitive Science - Machine Learning & Neural Computation B.S. in Mathematics; Minor in Computational Social Science Distinction in Cognitive Science Cum Laude (GPA: 3.86 / 4.0)	San Diego, CA 2022
Honors &	National Defense Science and Engineering Graduate (NDSEG) Fellowship, Ac	•
Awards	NSF Graduate Research Fellowship, Awarded	2023
	Robert J. Glushko Prize for Distinguished Undergraduate Research, UC San D	iego 2022
	NSF Graduate Research Fellowship, Awarded	2022
	Triton Research and Experiential Learning Scholarship, UC San Diego	2020
	Chancellor's Research Scholarship, UC San Diego	2020
	HDSI Undergraduate Research Scholarship, UC San Diego	2019
Research Experience	Cognitive Tools Lab (PI: Judith Fan) Lab Manager  Sep	La Jolla, CA 2021 – Sep 2022
	<ul> <li>Collaborated on four projects writing online behavioral experiments and assignables.</li> </ul>	isting with data

external events, and mentoring undergraduate students.

Research Assistant Aug 2019 - Sep 2021

• Assist Dr. Fan with lab finances, server maintenance, onboarding new members, scheduling

- Led a project investigating the effect of visual perception and object typicality on the ability to draw objects at different levels of specificity. Published a first-authored conference paper, a poster presentation, and preparing work for journal submission.
- Wrote five web-based drawing experiments and three annotation studies using jsPsych, Node.js, and MongoDB. Used Python and R to conduct data analysis. Used R for mixed effects modeling.

#### Mattar Lab (PI: Marcelo Mattar) Research Assistant

La Jolla, CA Mar 2021 - Jun 2022

- · Developed novel task paradigm to investigate the impacts of spatial organization on task efficiency for my senior thesis.
- Used gaussian mixture models and PCA to characterize ways people rearranged their environments to efficiently perform visual search.

### **PROFESSIONAL** EXPERIENCE

### Signifyd **Data Scientist**

San Jose, CA

Oct 2022 - Present

• Building production machine learning systems to detect fraud in online transactions.

### **UCSD Information Technology Services Desktop Services Unit Programmer**

La Jolla, CA *Jun* 2019 – *Apr* 2020

 Debugged hardware and software issues, conducted inventory organization, and wrote technical documentation. Maintained, built, and imaged machines for use by library staff.

Fi@UCSD

La Jolla, CA

**UX Design Intern** Jan 2019 – Aug 2019

• Conducted live interviews, expert analysis, competitive analysis, and compiled user flows against competing websites to understand client behavior when searching for help on the UCSD library website. [Report]

# TEACHING & COMMUNITY SERVICE

## **Teaching Assistant** Introduction to Statistics with R

La Jolla, CA

Mar 2022 - Jun 2022

- · Led a remote discussion section of 35 undergraduate students, guiding them through a quarterlong statistics project to learn the fundamentals of statistical thinking with R.
- Automated aspects of course grading using Python.

#### Introduction to Statistics with R

• Led a remote discussion section of 16 undergraduate students, guiding them through a quarter-long statistics project to learn the fundamentals of statistical thinking with R.

# Triton Research Involvement Initiative Mentor

La Jolla, CA Sep 2020 – Jul 2021

• Mentored two underrepresented transfer students interested in research in psychology and ecology. Assisted mentees with constructing emails to faculty, applying to research programs, and discovering research interests.

# Cognitive Science Student Association Public Relations Board Member

La Jolla, CA Sep 2019 – Jun 2020

• Contacted faculty members and industry professionals to arrange professional development events for the organization.

#### **PUBLICATIONS**

- Yang, J., and Fan, J. (submitted). Visual communication of object concepts at different levels of abstraction.
- Yang, J., Binder, F., Mattar, M., and Fan, J. (*in prep*). Rearranging the Environment to Facilitate our Goals. [Draft]

#### **PRESENTATIONS**

- Nagabandi, M., Yang, J., Huey, H., Fan, J. (2022). Disentangling visual and propositional representations of part structures within objects. *Proceedings of the 44th Annual Meeting of the Cognitive Science Society*.
- Huey, H., Long, B., Yang, J., George, K., Fan, J. (2022). Developmental changes in the semantic part structure of drawn objects. *Proceedings of the 44th Annual Meeting of the Cognitive Science Society*.
- Brockbank, E., Wang, H., Yang, J., Mirchandani, S., Bıyık, E., Sadigh, D., Fan, J. (2022). How do people incorporate advice from artificial agents when making physical judgments? *Proceedings of the 44th Annual Meeting of the Cognitive Science Society*.
- Yang, J., and Fan, J. (2021). Visual communication of object concepts at different levels of abstraction. *Proceedings of the 43rd Annual Meeting of the Cognitive Science Society*. [PDF] [Code]
- Yang, J., and Fan, J. (2021). Visual communication of object concepts at different levels of abstraction. 2021 Vision Sciences Society Undergraduate Just-In-Time Poster Sessions.
- Yang, J., and Fan, J. (2020). How do humans convey what they perceive and know about objects in visual form? *Halicioğlu Data Science Institute Undergraduate Scholarship Presentations*.
- Yang, J., and Fan, J. (2020). Communicating visual concepts at different levels of abstraction. *Academic Enrichment Programs Summer Research Conference*.
- Yang, J. (2020). Revelle Winter Research Panel.

# SKILLS & HOBBIES

Programming Python, R, SQL, HTML, CSS, JavaScript, LATEX, Bash

Crowdsourcing Amazon Mechanical Turk, Prolific, Sona

Tools AWS S3, AWS EC2, AWS Redhat, MongoDB, GitHub

**Hobbies** I play the marimba, baritone, and any other percussive instrument. I also like hiking and have been trying out rock climbing.