

Ishika Rathi

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EDUCATION

University of California, San Diego | Overall GPA: 3.97/4.0 2019 - 2023

Bachelors of Science (B.S.) in Cognitive Science with a specialization in Neuroscience
Bachelors of Art (B.A.) in Literature/Writing

Relevant coursework: Cyborgs Now and in the Future, Cognitive Neuroscience, Systems Neuroscience, Neuroanatomy and Physiology, Neurological Development & Cognitive Change, Statistical Analysis

Thesis: *Where I left my Guru* (Honors with Highest Distinction)

PUBLICATIONS

Rathi, I., Taylor, S., Bergen, B., & Jones, C. R. GPT-4 is judged more human than humans in displaced and inverted Turing tests. *Proceedings of the 2025 Joint International Conference on Computational Linguistics (COLING 2025)*. <https://aclanthology.org/2025.genaidetect-1.7/>. [Best Paper Award]

Rathi, I., Jones, C. R., Bergen, B. (2025). Judging the Judges: Displacing and Inverting the Turing test to Investigate the Interrogator. *Proceedings of the Annual Meeting of the Cognitive Science Society (Vol. 47)*. <https://escholarship.org/uc/item/35g9m4bb>.

Jones, C. R., **Rathi, I.**, Taylor, S., & Bergen, B. K. (2025). People cannot distinguish GPT-4 from a human in a Turing test. *Proceedings of the 2025 ACM Conference on Fairness, Accountability, and Transparency*, 1615–1639. <https://doi.org/10.1145/3715275.3732108>.

PRESENTATION

Rathi, I., Taylor, S., Bergen, B., & Jones, C. R. (2025, January). *GPT-4 is Judged More Human than Humans in Displaced and Inverted Turing Tests*. Oral presentation at the 2025 COLING Workshop on AI Generated Content Detection. [Best Paper Award]

Rathi, I., Jones, C. R., Bergen, B. (2025, August). *Judging the Judges: Displacing and Inverting the Turing test to Investigate the Interrogator*. Poster presentation at the 2025 Cognitive Science Society Conference.

RESEARCH EXPERIENCE

Language and AI Research Assistant — *Language and Cognition Lab at UC San Diego* 2024 - present
Principal Investigator: Benjamin Bergen, Ph.D.

- ▶ Led 2 research studies on AI detection, conducting Turing Tests on LLMs and human participants, contributing to the field of Human-AI interaction.
- ▶ Designed and implemented a jsPsych experiment (125+ participants, ages 18-23).
- ▶ Conducted parallel experiment with LLMs using OpenAI API to generate 1,700+ GPT responses, aligning outputs with human participant data to evaluate model-human performance contrasts.
- ▶ Applied 10+ binomial linear mixed effects models in R to analyze data, identifying significant results and creating plots for the publication.
- ▶ Performed in-depth analysis of 50 peer-reviewed studies on Turing tests and AI detection, integrating empirical findings and theory to inform manuscript development.
- ▶ Drafted, revised, and finalized a manuscript on GPT-4's performance in displaced and inverted Turing tests in Overleaf within 15 days, ensuring timely submission to COLING 2025.

Cognitive Neuroscience Research Fellow — *Greene Lab at UC San Diego* 2023 - 2024
Principal Investigator: Deanna Greene, Ph.D.

- ▶ Applied DCAN Pipeline to complete fMRI preprocessing for 75+ participants in the Longitudinal Tourette's Syndrome Study (LoTS), a study investigating brain changes in pediatric Tourette's Syndrome.

- ▶ Analyzed 200+ LoTS MRI images for data quality, checking midthickness, BOLD data (dtseries), and network connectivity. Resulted in the preparation of the dataset for analysis.
- ▶ Initiated MRI seedmap analyses for LoTS study, comparing functional connectivity in pediatric Tourette's Syndrome with or without comorbid Obsessive-Compulsive Symptoms.
- ▶ Assisted with MRI scan visits and shadowed clinical visits, building rapport with participants and parents, educating them on study procedures, and ensuring safety/comfort.
- ▶ Scored clinical questionnaires on Redcap, including Yale Global Tic Severity Scale (YGTSS) and Yale-Brown Obsessive Compulsive Scale (Y-BOCS), ensuring accurate and reliable tracking of symptoms.

Neurolinguistics EEG Research Assistant — *Brain and Cognition Lab at UC San Diego* 2023
Principal Investigator: Seana Coulson, Ph.D.

- ▶ Supported neurolinguistic EEG data collection, including experiment set up, participant interactions (consent, questions, tasks), fitting EEG cap and electrodes, checking for impedance, and cleaning electrodes post-session.

Research Assistant — *Study of Latinos: Investigation of Neurocognitive Aging at UC San Diego* 2022
Principal Investigator: Hector Gonzalez, Ph.D.

- ▶ Built a reference database through systematic review and organization of 40+ peer-reviewed lab publications, aiding literature synthesis and longitudinal research tracking.
- ▶ Adapted 40+ research abstracts into accessible language for social media dissemination, broadening community engagement and increasing the lab's following to 100+.

Language & Thought Research Assistant — *Boroditsky Lab at UC San Diego* 2019 - 2020
Principal Investigator: Lera Boroditsky, Ph.D.

- ▶ Presented and facilitated lab discussion on a 20-page paper examining the political effects of COVID-19 metaphors, sparking the development of a new research project on immigration metaphors.
- ▶ Systematically coded a dataset of 5,500 tweets for metaphorical framing of immigration.

WORK EXPERIENCE

Program Coordinator — *Warren College Writing Program* 2023 - present

- ▶ Coordinate research project to assess effects of collaborative assessment on student metacognition.
Principal Investigator: Haleema Welji, Ph.D.
 - ▶ Developed 4 pre-/post-surveys and 2 focus group protocols for 2,000 participants (ages 18–23), collecting self-reports on learning and metacognition.
 - ▶ Integrate data from Qualtrics, Tableau, and Canvas in Python and Excel to perform timepoint-wise descriptive analyses, create correlation matrices, and code qualitative data for thematic analyses.
 - ▶ Draft and revise all materials for submission to IRB, including research proposal and consent forms, successfully complying with human subjects research policies and procedures.
- ▶ Conducted 3 literature searches of 30+ peer-reviewed papers on metacognition, collaborative grading, and use of AI in writing pedagogy.
- ▶ Updated data collection procedures by automating a 5+ year student enrollment tracker, revealing a 700+ student gap in supply vs. demand of course offerings, resulting in the hiring of 4 additional faculty members and 15 graduate students to better meet student needs.
- ▶ Prepared an onboarding manual, systems manual, and handbook for my position, establishing a structured training timeline and reference documents for other coordinators.
- ▶ Manage scheduling, hiring, purchasing, resource and space management, fiscal reconciliations, website, and databases. Results in streamlined program operations.

Orientation Intern — *Earl Warren College at UC San Diego* 2022

- ▶ Coordinated virtual and in-person events for 1,400+ students, designing orientation curriculum and staff schedules, and overseeing event operations. Resulted in successful 5-day event for incoming students.

- ▶ Mentored undergraduate student staff by designing and facilitating 40+ hours of training, incorporating professional development training on strengths (CliftonStrengths), public speaking, Zoom and in-person group facilitation, DEI, and restorative justice. Resulted in a highly prepared team of leaders.

Instructional Assistant — *Writing Nonfiction at UC San Diego* 2021

- ▶ Led 10+ discussion sections for a subset of 12 students, developing writing prompts and resources, facilitating workshops, and providing hands-on feedback.
- ▶ Graded assignments and tracked attendance for 40+ students.

COMPETENCIES

Technical Skills: Python, R, HTML, Javascript, OpenAI & Anthropic API, LaTeX

Certifications: CITI, HIPAA, FERPA

Research Skills: EEG capping, MRI assistance, Redcap, IRB

Languages: English, Hindi, Marwari, French, Marathi

HONORS AND AWARDS

- ▶ Best Paper Award — International Conference on Computational Linguistics 2025
- ▶ 2024-25 Equity-Minded Assessment Fellow — UC San Diego 2025
- ▶ Cognitive Science Summer Fellowship — UC San Diego 2023
- ▶ Provost Honors — UC San Diego 2019-2023
- ▶ Honors with Highest Distinction — UC San Diego 2022
- ▶ Author's Guild Scholarship — Evergreen Valley Community College 2019
- ▶ Sterling Warner Poetry Award — Evergreen Valley Community College 2019

ACTIVITIES

- ▶ **People Assisting the Homeless (PATH) San Diego**, *Volunteer*
- ▶ **San Diego Pride**, *Volunteer*
- ▶ **Warren College Student Council**, *Marketing Director & Provost Advisory Committee Representative*
- ▶ **Righting.College.Essays (Instagram)**, *Founder*
- ▶ **TLCC Kids**, *Creative Writing Teacher*
- ▶ **Habib Khan Saraswati Temple and Gurukul**, *Hindustani Classical Vocal and Sitar Teacher*