

Kathy Garcia

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EDUCATION

- 2022 - Present Johns Hopkins University
Ph.D. in Computational Cognitive Science | GPA: 4.0/4.0
M.A. in Computational Cognitive Science | 2024 | GPA: 4.0/4.0
Advisor: Leyla Isik
- 2013 - 2017 Stanford University
B.S. in Science, Technology, and Society

EXPERIENCE

- 2022 - Present **Graduate Researcher | Computational Cognitive Neuroscience Lab**
Johns Hopkins University
PI: Leyla Isik
Exploring computational models for dynamic and social visual perception by assessing diverse Deep Neural Networks (DNNs) against the lateral visual stream's response to naturalistic videos, and analyzing their hierarchical alignment with brain regions like the superior temporal sulcus (STS).
- 2020 - 2021 **Research Fellow | NU-IN Postbaccalaureate Research Research Program**
Northwestern University
PI: Robin Nusslock
Developed machine learning models for predicting dimensional symptoms of psychopathology from task-based fMRI using support vector regression, and clustering dimensional symptoms of psychopathology and related cognitive effects.
- 2019 - 2020 **Staff Research Associate | TMS Clinic and Research Program**
University of California, Los Angeles
Assisted in clinical and technical procedures to facilitate doctors and researchers to provide repetitive transcranial magnetic stimulation (rTMS) treatment, and pioneered an automated data processing algorithm to reduce patient data processing time from 20 minutes to 1 second per patient while eliminating human error.

2017 - 2018

Data Scientist & KDB+/Q Engineer | KX Systems/First Derivatives

Collaborated with a team of consultants to implement kdb+/q framework for major US financial institutions, migrating an existing multi-region financial trade data capture and enrichment system involving combined static and real-time data source handling.

PUBLICATIONS

- 2025 **Garcia, K.**, McMahon, E., Conwell, C., Bonner, M.F., Isik, L. **Modeling Dynamic Social Vision Reveals Gaps Between Deep Learning and the Human Brain.** *Accepted submission for The Thirteenth International Conference on Learning Representations (ICLR): April 2025*
- 2024 **Garcia, K.**, McMahon, E., Conwell, C., Bonner, M.F., Isik, L. **Large-scale Deep Neural Network Benchmarking in Dynamic Social Vision.** *Journal of Vision, 24(10)*, pp. 716: September 2024
- 2024 McMahon, E., **Garcia, K.**, Conwell, C., Bonner, M.F., Isik, L. **Language model prediction of visual cortex responses to dynamic social scenes.** *Journal of Vision, 24(10)*, pp. 904: September 2024

INVITED TALKS

- 2025 **Garcia, K.**, Isik, L. **Semantic and Social Features Drive Human Grouping of Dynamic, Visual Events in Large-Scale Similarity Judgments.** Talk presentation at the annual meeting for the Vision Sciences Society (VSS): May 2025
- 2025 **Garcia, K.**, McMahon, E., Conwell, C., Bonner, M.F., Isik, L. **Bridging the Gap: Modeling Dynamic Social Vision in Humans and AI.** Guest speaker presentation at the Research Meeting for the Scaffolding of Cognition Team, Stanford University: February 2025
- 2024 **Garcia, K.**, McMahon, E., Conwell, C., Bonner, M.F., Isik, L. **Modeling Dynamic Social Vision Reveals Gaps Between Deep Learning and the Human Brain.** Talk presentation at the annual meeting for Computational Cognitive Neuroscience (CCN): August 2024
- 2024 **Garcia, K.**, McMahon, E., Conwell, C., Bonner, M.F., Isik, L. **Modeling Dynamic Social Vision Reveals Gaps Between Deep Learning and the Human Brain.** Talk presentation at the annual meeting for the International Conference on Machine Learning (ICML), LatinX in AI Workshop: July 2024

- 2024 **Garcia, K.**, Conwell, C., McMahon, E., Bonner, M.F., Isik, L. **Large-scale Deep Neural Network Benchmarking in Dynamic Social Vision**. Talk presentation at the annual meeting for the Vision Sciences Society (VSS): May 2024
- 2024 **Garcia, K.**, Conwell, C., McMahon, E., Bonner, M.F., Isik, L. **Dynamic, social vision highlights gaps between deep learning and humans**. Brown bag talk at the Johns Hopkins University, Department of Cognitive Science: April 2024
- 2020 **Garcia, K.** Review Discussion on MVPA Methods, Principles of fMRI Course, Evanston, IL. Oral Presentation: July 2020

POSTER PRESENTATIONS

- 2025 **Garcia, K.**, McMahon, E., Conwell, C., Bonner, M.F., Isik, L. **Modeling Dynamic Social Vision Reveals Gaps Between Deep Learning and the Human Brain**. Poster to be presented at the upcoming annual meeting for the International Conference on Learning Representations (ICLR): April 2025
- 2024 **Garcia, K.**, McMahon, E., Conwell, C., Bonner, M.F., Isik, L. **Modeling Dynamic Social Vision Reveals Gaps Between Deep Learning and the Human Brain**. Poster presented at the upcoming annual meeting for the Computational Cognitive Neuroscience Conference (CCN): August 2024
- 2024 **Garcia, K.**, McMahon, E., Conwell, C., Bonner, M.F., Isik, L. **Modeling Dynamic Social Vision Reveals Gaps Between Deep Learning and the Human Brain**. Poster presented at the annual meeting for the International Conference on Machine Learning (ICML), LatinX in AI Workshop: July 2024
- 2021 **Garcia, K.**, Anderson, Z., Chat, I. K., Damme, K., Bookheimer, S.Y., Zinbarg, R., & Craske, M., Nusslock, R. Predicting Dimensional Symptoms of Psychopathology from Task-Based fMRI using Support Vector Regression. Poster presented at the annual meeting for the Society for Neuroscience (SFN): January 2021

HONORS, AWARDS & SCHOLARSHIPS

- 2025 John I. Yellott Travel Award
- 2025 National Eye Institute Early Career Scientist Travel Grant
- 2024 ICML 2024 LatinX in AI Workshop Best Oral Presentation Award
- 2024 National Science Foundation (NSF) Graduate Research Fellowship
- 2024 Females of Vision et al. (FoVeA) Travel and Networking Award

2022	Johns Hopkins University Keller Miller Fellowship
2020	Northwestern University Interdepartmental Neuroscience Research Fellowship
2017	Stanford University El Centro Latino Acknowledgement Undergraduate with Academic Honors
2016	Bay Area Graduate Pathways to STEM Symposium Trainee
2016	Stanford University Leadership Intensive Program Recipient
2013	Miguel Contreras Learning Complex Valedictorian
2013	Carnegie Mellon Celebration of Diversity Weekend Travel Awardee
2012	QuestBridge College Prep Scholar

TEACHING

Spring 2024	<p>Johns Hopkins University</p> <p>Role: Teaching Assistant</p> <p>Course: Cognitive Neuropsychology of Visual Perception</p> <p>Lecture Instructor: Michael McCloskey</p> <p><i>Prepared and graded exams and assignments</i></p>
Fall 2023	<p>Johns Hopkins University</p> <p>Role: Teaching Assistant</p> <p>Course: Cognitive Neuroimaging Methods in High-Level Vision</p> <p>Lecture Instructor: Donald Li</p> <p><i>Prepared and graded quizzes and assignments</i></p>
Spring 2023	<p>Johns Hopkins University</p> <p>Role: Teaching Assistant</p> <p>Course: Reading the Mind: Computational Cognitive Neuroscience of Vision</p> <p>Lecture Instructor: Donald Li</p> <p><i>Prepared and graded quizzes and assignments</i></p>
Fall 2020	<p>Splash at Northwestern University</p> <p>Role: Teacher</p> <p><i>Designed, programmed, and instructed an introductory course and exploration to high school students on the facets of recreating human intelligence in artificial systems through guiding principles in neuroscience, cognitive science, and artificial intelligence, with a focus on limitations, progress, and emerging methods.</i></p>

SERVICE & OUTREACH

- 2023 - Present **Student Lead | Diversity and Representation Committee (DRC)**
Department of Cognitive Science, Johns Hopkins University
Led and facilitated departmental initiatives to enhance representation and equity for minoritized groups at all levels. Worked to create a more inclusive and supportive department climate, particularly for underrepresented groups in science, while also advocating for school- and university-wide anti-racist policies and initiatives.
- 2022 - Present **Student Representative | Graduate Representative Organization (GRO)**
Johns Hopkins University
Student representative for the Department of Cognitive Science, advocating for graduate student interests, attending GRO meetings, and facilitating communication between students and university administration.
- 2016 - 2017 **Intern Volunteer | Youth Policy Institute**
Partnership with Stanford HAAS Center for Public Service
Fostered STEM learning environments for children across low-income communities of Los Angeles in areas such as health & wellness and computer science by introducing many to logical online games that provide the basis for computer programming
- 2016 - 2017 **Member | Stanford Latinos Unidos**
Stanford University
Organized community outreach programs to cultivate a more inclusive, diverse, and united Latinx community on campus, through social and cultural events about the various Latin American celebrations, our rich history, literature, art, and diverse community.
- 2016 - 2017 **Co-Founder & President | Stanford Latinx Business Association**
Stanford University
Created and facilitated a student group focused on promoting diversity in corporations by building partnerships, finding community, and providing mentorship for underrepresented minorities, with a particular focus on members of the Latinx community who are interested in business, technology, and engineering.