# **OVIYA MOHAN**

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#### **EDUCATION**

Ph.D.	Brain and Cognitive Sciences (BCS); Collective Cognition Lab	2021-present
	University of Rochester, New York	
MS(R)	Cognitive Science (CGS); Indian Institute of Technology, Kanpur (CGPA: 9.35/10)	2018-21
B.Sc.	Physics; Amrita University, Coimbatore, India (CGPA: 9.66/10)	2015-18

#### **CURRENT RESEARCH**

### **Experimental emergence of conventions in humans**

2021 - present

Studying the emergence of conventions in the laboratory under various conditions through computerized multiplayer tasks with humans to address questions that promise to yield significant advances for our understanding of how groups solve recurring multi-agent coordination problems

#### Gaze following in marmoset monkeys (Callithrix jacchus)

2021 – present

Studying gaze-following (directing one's attention to where someone else is looking, essential for successful social interaction involving coordination) in common marmoset monkeys (*Callithrix jacchus*) to address open questions about the evolution of this ability in humans using naturalistic video stimuli and high-precision eye tracking

# Coordinated problem solving in marmoset monkeys (Callithrix jacchus)

2021 - present

Developing a paradigm to study the cognitive mechanisms underlying coordinated problem-solving by using deep learning and machine vision tools to track and quantify visual attention in free-moving common marmosets

#### **AWARDS**

# Diverse Intelligences Summer Institute Fellow Kuczaj Memorial Travel Grant March 2025

32<sup>nd</sup> International Conference on Comparative Cognition

## Donald M. and Janet C. Barnard Fellowship

2024-25

Awarded by the School of Arts, Sciences & Engineering at the University of Rochester, in recognition of achievements in research, mentoring, outreach and service.

# **Best Research Talk,** Experimental Emergence of Conventions in Humans

October 2023

Graduate Research Day, University of Rochester

# **CONFERENCE PROCEEDINGS AND PRESENTATIONS**

Context-dependent of	aaze followina in	n common marmosets

Poster, 47 <sup>th</sup> Annual Meeting of the Cognitive Science Society	August 2025
Poster, 25th Annual Meeting of the Vision Sciences Society [Proceedings]	May 2025

#### Common marmosets exhibit coordination in a rope-pulling task

Oviya Mohan, Jude Mitchell and Dora Biro

Talk, 32<sup>nd</sup> International Conference on Comparative Cognition March 2025

# Experimental Emergence of Conventions in Humans

Oviya Mohan and Dora Biro

Poster, 46 <sup>th</sup> Annual Meeting of the Cognitive Science Society [ <i>Proceedings</i> ]	July 2024
Talk, 31st International Conference on Comparative Cognition	April 2024
Poster, Gordon Research Conference - Collective Behavior	August 2023

# Free-viewing of static natural images and movies in marmoset monkeys

Oviya Mohan, Amy Bucklaew, Dora Biro, and Jude F. Mitchell

Poster, 24th Annual Meeting of the Vision Sciences Society [Proceedings] May 2024

# **TEACHING**

Co-Instructor, Animal Minds (BCSC 183)	Fall 2025
Teaching Assistant, Computational Models of Perception and Cognition (BCSC 229)	Spring 2025
Guest Lecture, Language Use and Understanding (BCSC 261)	Fall 2024, 2025
Teaching Assistant, Animal Minds (BCSC 183)	Fall 2022, 2023
Organizer/Instructor, Advanced Methods in Brain and Cognitive Sciences (BCSC 509)	Spring 2023
Organizer/Instructor, Statistics for Brain and Cognitive Sciences (BCSC 519)	Fall 2022
Tutor, Basic Statistics, Data Analysis and Inference (CGS 602A)	Fall 2020
Teaching Assistant, Logic and Cognitive Science (CGS 651A)	Spring 2020

# **PAST RESEARCH** Master's Thesis, Executive Function and Reasoning 2019-21 Designed and conducted experiments, using rules of formal logic, to understand the connection between executive functions and reasoning in different developmental stages, including school children Master's Project, Agent Based Modelling of Cooperation 2019 Used an agent-based model to better understand the role of cooperation in the survival of both individuals and groups in a community 2018 **Bachelor's Project**, Pulse Generating Circuit for NMR (for an indigenous MRI) Advisor: Dr. Murugadass K, Amrita University Built a pulse generating circuit for NMR using 555 timer IC for building an indigenous MRI machine **RESEARCH POSITIONS** Research Associate, Building a GUI for PHMR, GAIL 2021 Applied Dynamics and Vibration Laboratory, Dept. of Mechanical Engineering, IIT Kanpur Designed an intuitive GUI to display data from a gas pipeline health monitoring robot (PHMR), for a project commissioned by the Gas Authority of India Ltd. (GAIL) Research Assistant, Role of Object's Self Relevance in Attentional Guidance 2018-19 Designed and conducted behavioral experiments to understand the role of an object's self-relevance when used as a distractor in visual search paradigms Research Internship, Tribological Characterization and Coating Deposition 2017 Defence Research & Development Organization, Hyderabad Utilized a tribometer to characterize frictional properties of various coatings **MENTORING AND LEADERSHIP** 2023 - present **Undergraduate Mentees:** Janejira Chapoomee (Neuroscience), Alexia Nelms (Neuroscience), Yiran Zhu (Brain & Cognitive Sciences) Past: Enana Jacob (Neuroscience), Kiet Nguyen (Computer Science), Skye Crocker (Data Science), Federico Sanchez (Biology), Helena Xiong (Neuroscience) **Graduate Student Representative,** BCS, University of Rochester 2022-24 Committees: Graduate Program Overhaul, Faculty Search, BCS DEI Department Representative, GSA, University of Rochester 2023-24 **Graduate Ambassador,** GEPA, University of Rochester 2022-23 Hall Executive Committee, IIT Kanpur 2019-20 Core Member, Association of Sciences, Amrita Vishwa Vidyapeetham 2016-18 School Pupil Leader, The PSBB Millennium School 2014-15 **OUTREACH**

STAr (Science Teaching through Art), Organizer	Fall 2025	
DEI (Diversity, Equity and Inclusion) Committee (BCS) - Outreach Coordinator	2023 - present	
NeuroEast Bench Mentor (mentoring a high school student in a summer project)	Summer 2024, 2025	
Brain Awareness Campaign, Volunteer	2023 - 24	
Habitat for Humanity, Volunteer	2022	
eVidyaloka, Content Developer	2020-21	
Created lesson plans to teach children in rural India via local television channels in regional languages		

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NSS – National Service Scheme, Amrita University, Volunteer & Unit Secretary (Amrita University) 2016-18 Executed projects renovating village schools, lake clean-ups, tree plantation and road safety drives

### **CERTIFICATIONS AND WORKSHOPS**

Deep Learning - Machine Vision - Neuromatch Academy	July 2023
Safe Space Training - University of Rochester	December 2021
Writing about Science for Non-Scientific Audiences - IISER, Pune	December 2020
Introductory Machine Learning Workshop - Indian Institute of Technology, Madras	October 2020
Winter School on Cognitive Modelling - Indian Institute of Technology, Mandi	February 2019
Natural Language Processing - Indian Institute of Technology, Kanpur	December 2018

# **SKILLS & LANGUAGES**

Programming: Python, R, MATLAB, jsPsych, PsychoPy, C, C++

Other: Public speaking and debate, Voice acting, Student organization and leadership

Languages: Native/Bilingual Proficiency: English, Tamil; Goethe-Zertifikat A1: German; DELF A2: French