

Mrugank Dake

 mindemory.io

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 Hanover, NH

ACADEMIC HISTORY

Dartmouth College

Postdoctoral Researcher in Psychological and Brain Sciences

Advisor: Dr. John Murray

Hanover, NH

June 2026 – Present

New York University

PhD in Computational Cognitive Neuroscience

Advisor: Dr. Clayton Curtis

Dissertation: The nature and role of distributed representation in Working Memory

MPhil in Experimental Psychology

Coursework: Linear Algebra for Neural & Cognitive Science, fMRI Analysis Methods, Computational Neuroscience

New York, NY

May 2026

May 2025

Indian Institute of Science Education & Research (IISER)

BS-MS Dual Degree (Biology & Physics)

Coursework: Nonlinear Dynamics & Chaos, Statistical Thermodynamics, Linear Algebra, Multivariable Calculus

Tirupati, India

August 2021

PUBLICATIONS

- **Dake M.**, Curtis C. E. (2025). Perturbing human V1 degrades the fidelity of visual working memory. *Nature Communications*.
- **Dake M.**, Dandekar S., Curtis C. E. (2026). Neural synchrony between prefrontal and visual cortex supports visual working memory. *bioRxiv*
- **Dake M.**, Muni R., ..., Rajamani N. (*in prep*). More Than a Squeak: Complex Repertoires and Acoustic Adaptation in *Funambulus* Squirrels.

POSTERS & TALKS

- **Dake M.**, Dandekar S., Curtis C. E. Working memory synchronizes oscillations within and across cortical areas; *Society for Neuroscience (SfN), San Diego CA, USA* **Nov 2025**
- **Dake M.**, Dandekar S., Curtis C. E. Working memory synchronizes oscillations in visual cortex; *Computational Cognitive Neuroscience (CCN), Amsterdam, Netherlands* **May 2025**
- **Dake M.**, Curtis C. E. Perturbing human V1 degrades the fidelity of visual working memory; *In Working Memory Symposium (Virtual)* **July 2024**
- **Dake M.**, Curtis C. E. Do perturbations to visual cortex impact working memory?; *In Society for Neuroscience (SfN), Washington D.C., USA* **Nov 2023**
- Khare S., Chopra S., Grover H., Vohra T., Mahmood U., Jatwani K., Kaushik D., Pandey A., Bhardwaj S., Tanwar A., Singh J., Shekhar C., **Dake M.**, Krishnamoorthy K., Kumar K. Li-Koff: To Detect and Degrade N-Nitrosamines; *Giant Jamboree (iGEM), Boston, USA* **Nov 2020**
- Amar I., Avadhani K., Bajaj M., Balasubramanian D., Bhagat S., Chutani N., **Dake M.**, Khatri U., Krishna N., Jacob M., Mal S., Mohapatra O., Pal A., Saha D., Tripathy B., Mukherjee R., Rao B.J. CoCa coli: probiotic immunotherapy against colon cancer; *Giant Jamboree (iGEM), Boston, USA* **Nov 2019**

PRE-DOCTORAL RESEARCH EXPERIENCE

- Statistical and Machine learning approaches to Squirrel Acoustics (Masters' Thesis) **Aug 2020 - Aug 2021**
Advisor: Dr. Nandani Rajamani, IISER Tirupati, India

- EEG and MRS Analysis for underpinning neural correlates of attentional blink **May - Dec 2019**
Advisor: Dr. Sridharan Devarajan, IISc Bangalore, India
- CoCa coli: probiotic immunotherapy against colon cancer **Jan 2018 - Nov 2019**
Advisors: Dr. Raju Mukherjee; Dr B J Rao, IISER Tirupati, India
- Isolation and characterization of neurons and glia from goat hippocampal culture **Sep 2018 - May 2019**
Advisor: Dr. Vasudharani Devanathan, IISER Tirupati, India
- Identifying differentially expressing tumor suppressor genes in *Drosophila melanogaster* wing and haltere imaginal discs **May - Aug 2018**
Advisor: Prof. L S Shashidara, IISER Pune, India
- RNA Origami (Square) using in-vitro replication and transcription **Jan - March 2018**
Advisor: Dr. Ashwani Sharma, IISER Tirupati, India
- Head direction cell model for rodents with internal updating mechanism **May - Aug 2017**
Advisor: Dr. Collins Assisi, IISER Pune, India

NON-ACADEMIC EXPERIENCE

NYU Leslie Entrepreneurial Institute	New York, NY
Leslie Founder	Feb 2026 – Present
Meta Reality Labs	Burlingame, CA
Product Data Science (PhD) Intern	May – Aug 2025
New York University	New York, NY
<i>Teaching Assistant:</i> Scientific Programming (MA Course)	Fall 2025
<i>Teaching Assistant:</i> iEEG/EEG/MEG Methods (PhD Course)	Fall 2024
<i>Teaching Assistant:</i> Introduction to Cognitive Neuroscience (UG)	Fall 2023
<i>Teaching Assistant:</i> Math Tools III: Linear Systems (PhD Course)	Spring 2023

PROFESSIONAL SERVICE

Ad-hoc Reviewer: eLife, ICLR (2026), Cognitive Science Society (2025), Computational Cognitive Neuroscience (CCN 2025, 2026)	
Project Mentor: iGEM, Manav Rachna Institute	2020
Student Team Leader: iGEM, IISER Tirupati	2019
Website Design Coordinator: Climatedmatch Academy	May – Nov 2023

AWARDS

Society for Neuroscience Trainee Professional Development Award (\$1,000)	2025
Dean's Award for Research Communication Excellence, NYU (\$2,000)	2025
MacCracken Doctoral Fellowship, NYU	2021 – 2026
Indian Biological Engineering Competition (iBEC) Grant (~\$12,000)	2020
Indian Biological Engineering Competition (iBEC) Grant (~\$12,000)	2019
GSAS Conference Travel Grant, NYU	2025
INSPIRE Fellowship, Department of Science and Technology India	2016 – 2021
5th Place, Indian National Brain Bee (INBB)	2015

SKILLS

Programming

Python, MATLAB, R, SQL, L^AT_EX, CSS, JavaScript, HTML, React, NodeJS, Supabase, Vercel, Antigravity, VSCode

Neuroscience Tools

EEG, MEG, fMRI, TMS, ECoG, Fieldtrip, MNE-Python, SimNIBS, Psychtoolbox

Data Science & ML

PyTorch, TensorFlow, Keras, Scikit-learn, Neural Networks, Time-series Analysis

Other Tools & Languages

Git/GitHub, Adobe Illustrator, Adobe Photoshop
English (Fluent), Hindi, Marathi