

Mrugank Dake

✉ mrugank.dake@nyu.edu

🌐 [mindmemory.github.io](https://github.com/mindmemory)

🔗 github.com/mindmemory

🐦 [@the_memory_guy](https://twitter.com/the_memory_guy)

📍 New York, NY

🏠 EDUCATION

New York University

New York, NY

PHD IN EXPERIMENTAL PSYCHOLOGY (COGNITION & PERCEPTION)

Expected Graduation: May 2026

Advisor: Dr. Clayton Curtis

GPA: 3.95/4.0

MPHIL IN PSYCHOLOGY

2024

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

Indian Institute of Science Education & Research (IISER)

Tirupati, India

BS-MS DUAL DEGREE (BIOLOGY & MINOR IN PHYSICS)

August 2021

CGPA: 8.2/10.0

Relevant Coursework: Nonlinear Dynamics & Chaos, Statistical Thermodynamics, Linear Algebra (I & II), Calculus (Univariate and Multivariate)

📖 PUBLICATIONS

- **Dake M.**, Dandekar S., Curtis C. E. (*in prep*). Working memory synchronizes oscillations within and across cortical areas
- **Dake M.**, George M., Serfaty J., Curtis C. E. (*in prep*) Role of V1 in representing orientation during working memory
- **Dake M.**, Curtis C. E. (2025). Perturbing human V1 degrades the fidelity of visual working memory. *Nature Communications*.

📄 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* **2025**
- **Dake M.**, Dandekar S., Curtis C. E. Working memory synchronizes oscillations in visual cortex; *Computational Cognitive Neuroscience (CCN), Amsterdam, Netherlands* **2025**
- **Dake M.**, Curtis C. E. Perturbing human V1 degrades the fidelity of visual working memory; *In Working Memory Symposium (Virtual)* **2024**
- **Dake M.**, Curtis C. E. Do perturbations to visual cortex impact working memory?; *In Society for Neuroscience (SfN), Washington D.C., USA* **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* **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* **2019**

🔬 PRE-DOCTORAL RESEARCH EXPERIENCE

- EEG and MRS Analysis for underpinning neural correlates of attentional blink **2019**
Advisor: Dr. Sridharan Devarajan, IISc Bangalore, India
- CoCa coli: probiotic immunotherapy against colon cancer (iGEM project, student leader) **2018-19**
Advisors: Dr. Raju Mukherjee; Dr B J Rao, IISER Tirupati, India
- Isolation and characterization of neurons and glia from goat hippocampal culture **2018**

- Advisor: Dr. Vasudharani Devanathan, IISER Tirupati, India*
- Identifying differentially expressing tumor suppressor genes in *Drosophila melanogaster* wing and haltere imaginal discs **2018**
Advisor: Prof. L S Shashidara, IISER Pune, India
 - RNA Origami (Square) using in-vitro replication and transcription **2018**
Advisor: Dr. Ashwani Sharma, IISER Tirupati, India
 - Head direction cell model for rodents with internal updating mechanism **2017**
Advisor: Dr. Collins Assisi, IISER Pune, India

NON-ACADEMIC EXPERIENCE

- Teaching Assistant for Scientific Programming (MA Course, 20 students) **2025**
Instructor: Dr. Shannon Turbidy, NYU
- Product Data Science (PhD) Intern **2025**
Meta Reality Labs, Meta
- Teaching Assistant for iEEG/EEG/MEG Methods Course (PhD Course, 17 students) **2024**
Instructor: Dr. Sebastian Michelmann, NYU
- Teaching Assistant for Introduction to Cognitive Neuroscience (Undergrad Course, 120 students) **2023**
Instructor: Dr. Clayton Curtis, NYU
- Teaching Assistant for Math Tools III: Linear Systems (PhD Course, 7 students) **2023**
Instructor: Dr. Laurence Maloney, NYU
- Website Design Coordinator **2023**
Climatematch Academy
- Statistics & Biology Tutor **2019-21**
Chegg India Inc.

AWARDS

- Society for Neuroscience Trainee Professional Development Award (USD 1000) **2025**
- NYU Graduate School of Arts and Science Conference Travel Grant (USD 500) **2025**
- Dean's Award for Research Communication Excellence (NYU) (USD 2000) **2025**
- MacCracken Doctoral Fellowship (NYU) (USD 36000/year) **2021-2026**
- Indian Biological Engineering Competition (iBEC) 2020 Grant (INR 1 million) **2020**
- Indian Biological Engineering Competition (iBEC) 2019 Grant; Gold Medal at Giant Jamboree, Boston (iGEM) IISER Tirupati (INR 1 million) **2019**
- INSPIRE Fellowship, Department of Science and Technology India (INR 60000/yr) **2016-2021**
- Pune Regional Winner and 5th at National Level for Indian National Brain Bee (INBB) **2015**

SKILLS

Languages: English (Fluent), Marathi (native), Hindi (native), German (Basic), Spanish (Basic)

Programming Skills: ADVANCED: Python, MATLAB, R, SQL, LaTeX, HTML; INTERMEDIATE: CSS, JavaScript

Software Skills: Tensorflow, Keras, scikit-learn, PyTorch, Fieldtrip, MNE-Python, Git, Github, SimNIBS, Psychtoolbox, Adobe Illustrator, Adobe Photoshop

Neuroimaging & Modeling Skills: EEG, MEG, ECoG, fMRI, TMS, time-series analysis, neural networks, computational modeling, machine learning