Naman Agrawal

📞 +1-607-280-1885 ✉ na488@cornell.edu 🌐 [website](#) in [LinkedIn](#) ⚙ [Github](#)

Work Experience

Cornell University | *Graduate Research Assistant* | Ithaca,NY   **Aug 2021 – Present**
- Developed ML models to predict the state-space residence of animals under different food deprivation conditions
- Constructed experimental rigs to study foraging behavior of flies
- Conducted large scale screenings to find neurons underlying foraging decisions in flies

MPI for Neurobiology of Behavior | *Research Assistant* | Bonn,Germany   **May 2019 – June 2020**
- Conducted high precision surgeries on fruit flies
- Targeted and activated single neurons in flies using micro-pipettes

Universitat Regensburg | *Research Intern* | Regensburg, Germany   **May 2018 – Aug 2018**
- Conducted experiments on neurobiological mechanisms of spontaneous behavior using optogenetics in *Drosophila*

National Center for Biological Sciences | *Research Intern* | Bengaluru, India   **May 2017 – Aug 2017**
- Modelling Avian vision and Color analysis using RStudio
- Analysis of Butterfly population data of Bengaluru using RStudio

InStem -NCBS | *Research Intern* | Bengaluru, India   **May 2016 – Aug 2016**
- Conducted experiments on Drosophila stem cell proliferation

Education

Cornell University   **2021 - Present**
Graduate Program in Neurobiology and Behavior, Major- Cognitive and Systems Neuroscience

Indian Institute of Science Education and Research, Kolkata   **2015 - 2020**
Integrated BS-MS   *9.15/10 CGPA*

Skills

Hardware: Strong proficiency in hardware development for quantification of animal behavior using Arduino, Raspberry Pi and IoT. Data storage and analysis using Bonsai and Python
Coding: Python, Scikit-Learn, pandas, scipy, numpy, matplotlib, RStudio,LaTeX
Bench Skills: Fly husbandry;Making and maintaining crosses; Brain and gut dissection; Optogenetics; Fluorescence and Confocal Microscopy

Selected Publications

- Deepthi Mahishi, **Naman Agrawal**, Wenshuai Jiang, Nilay Yapici - **From Mammals to Insects: Exploring the Genetic and Neural Basis of Eating Behavior** - *in revision*
- Haein Kim, Ziqing Zhong, Xinyue Cui, Hayeon Sung, **Naman Agrawal**, Tianxing Jiang, Monica Dus, Nilay Yapici - **HisCl1 regulates gustatory habituation in sweet taste neurons and mediates sugar ingestion in Drosophila.** - *in revision*

Organizing Roles

Vice-President - Graduate Student Improv Club   **2021-**
A group dedicated to improving mental health amongst graduate students at Cornell University through fun improv games

Vice President - Cornell India Association   **2021-22**
A club that aims to provide support to graduate students of South Asian descent during their time at Cornell University

Co-organizer - Neuro Study group   **2020**
an international group of neuroscience students who self study neuroscience and have weekly discussions

Lead Designer and Organizer   **2020**
Headed the design team for **Cogito137 at IISER Kolkata**, crafted media for the **National Post Doc Symposium** in collaboration with NCBS, and orchestrated the **'Scicomm for Scientists 2021'** workshop by DST, enhancing science communication and visual engagement across platforms.

Founding Member and Key Contributor   **2017-19**
Instrumental in establishing the **IISER Kolkata Student Alumni Cell**, organized and designed **Lexis, the institute's literary festival**, and creatively shaped **Inquivesta 8, the annual science fest**, enhancing campus culture and engagement.

Mentoring and Teaching Roles

Course Development TA | *Introduction to Neuroscience* | Cornell University   **2024**
- Helped course instructors update their materials to include contemporary examples
- Developed and taught an online resource to help students understand the basics of AI (find here)
- Taught 2.5 hours of Discussion Sections per week, made a website to consolidate all the materials of the discussion sections for easy access to students

Teaching Assistant | *Introduction to Neuroscience* | Cornell University   **2023**
- Taught 2.5 hours of Discussion Sections per week, apart from grading and attending lectures

Mentoring Undergraduates | *Yapici Lab* | Cornell University   **2021-**

Made a website to onboard undergraduates who want to work with *Drosophila* neuroscience. Successfully mentored several undergraduates, who have since excelled and achieved notable success in their current endeavors

- **Sophie Gustin**, current position - Senior Undergraduate student at Cornell University
- **Catherine Schweiger**, current position - Senior Undergraduate student at Cornell University
- **Claire Makino Duan**, current position - Research Technician, Harnett Lab, MIT
- **Joshua Dov Epstein**, current position - Clinical Research Associate - Recovery Without Walls

Miscellaneous

- 2024: Selected to join the prestigious **Cornell CTI Early Career Graduate Teaching Cohort**, proactively enhancing teaching capabilities and course design through specialized workshops.

- 2023: Voluntarily enrolled in the Cajal Neurokit Development Programme to master **computational analysis of behavior** and actively attended the **Neurobiology of Drosophila meeting at CSHL**. Participated in **Cornell's GET SET workshops** to refine teaching design techniques.

- 2022: Actively engaged at the **Society for Neuroscience (SfN 2022)** and pursued advanced computational neuroscience training at the **Neuromatch Academy**, demonstrating a commitment to academic excellence and professional growth.

- 2021: Spearheaded the **'Scicomm for Scientists 2021'** initiative under DST's Karyashala scheme to enhance science communication among peers. Took initiative to participate in the **Methods in Drosophila Biology** workshop at CCAMP Bangalore and attended the neurofemIndia conference to support diversity in neuroscience.

- 2020: Sought out participation in the **NeuroNovember Conclave** to stay abreast of emerging neuroscience trends and attended a Science Writing workshop at IISER Pune, actively improving scientific communication skills.

- 2018 & 2017: Consistently attended the annual **'Frontiers in Biology' conference** at IISER Kolkata, actively keeping pace with evolving biological research.