

Shweta Prasad

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EDUCATION

Ashoka University, Sonipat, Haryana, India

Aug 2018 – Aug 2022

BSc. Hons. in Computer Science with a Biology minor

- Lab Affiliation: Neuroethology Lab, Ashoka University
- Cumulative GPA: 3.62 / 4.0

Neuromatch Academy, School of Computational Neuroscience

Jul 2020 – Jul 2020

Interactive Track student, mentored by Dr. Adrien Peyrache, McGill University, Canada

Hari Sri Vidya Nidhi School, Punkunnam, Thrissur, Kerala, India

June 2012 – May 2016

Grade XII - ISC - 94.25 %; Grade X - ICSE - 94.25 %

RESEARCH EXPERIENCE

Neuroethology Lab, Ashoka University

Aug 2018 – Present

Supervisor: Dr. K. Bittu Rajaraman (Associate Professor, Depts. of Biology and Psychology)

- Ongoing project: Mathematically modelling call pattern generation and recognition in bushcrickets using complex dynamical system models.
- Independent study completed in topics in computational neuroscience with a focus on understanding spike sorting neural data, doing field work and assisting Ph.D students in designing behavioral experiments.

Neuromatch Academy

Jul 2020 – Jul 2020

Mentor: Dr. Adrien Peyrache, McGill University, Canada

- Completed group project: Decoding neural data from Steinmetz, et al., 2019, to predict erroneous decision making in trained mice. We made use of GLMs to predict whether the performance of trained mice that performed well in an 2-AUC experimental paradigm was affected by previous erroneous decisions. Results were inconclusive.

Single Molecule Biophysics, Haldar Lab, Ashoka University

Dec 2019 – Present

Supervisors: Dr. Shubhasis Haldar (Assistant Professor, Dept. of Biology) and Dr. Debayan Gupta (Assistant Professor, Dept. of Computer Science)

- Ongoing project: Building and improving covalent magnetic tweezers and associated software(s) for week-long studies of single molecules biophysics. (Currently on hold, due to COVID-19)

RESEARCH INTERESTS

- Complex dynamical systems, networks, information in networks and neuroethology
- Central pattern generators: rhythmic pattern production and recognition
- Acoustic communication, audition and navigation in invertebrates
- Reinforcement learning, optimal control & decision theory, particularly in understanding sensorimotor control

AWARDS & SCHOLARSHIPS

- Dean's List: Spring Semester 2019 – Summer Semester 2019
For attaining a semester GPA of at least 3.60.

LEADERSHIP ROLES

Student Representative, Department of Computer Science, Ashoka University

Sep 2020 – Sep 2021

Appointed by the Head of Department, Dept. of CS. I serve as primary coordinator of all communication between the department and the student body, and am responsible for outreach and organization within the student body.

Ministry of Academic Affairs, Student Government, Ashoka University

Sep 2020 – Sep 2021

Member of the Academic Advisory Board: The AAB is consulted by the MAA before policy decisions are made.

President, Vistaar - The Music Society, Ashoka University

Sep 2019 – Mar 2020

Vistaar is the largest student-run organization at Ashoka. As President, I:

- Brought about policy changes with regards to University facilities dispensed via Vistaar.
- Organized multiple stand-alone and collaborative on-campus events
- Shifted focus to building an inclusive, collaborative atmosphere for growth of musical engagement on campus

Ministry of Community Well-being : Infirmary & Sexual Health Dept., Student Government, Ashoka University

Jul 2019 – Mar 2019

ACADEMIC SOCIETIES	<p>Women in Computing Society, Ashoka University Member of Events Team. WICS, Ashoka is a student led academic society that focuses on inculcating an inclusive and productive space for women and non-binary folk in CS. We work to bring more women into CS and STEM.</p>	Aug 2018 – Present
OTHER WORK EXPERIENCE	<p>DiverseNeuro: A Diversity Project Co-Founder and Researcher A collaborative research venture between IISER Pune and Ashoka University; Aims to study the international academic demographic in neuroscience in order to help inclusive policy-making.</p> <p>The Neuroscience Outreach Network, Princeton, NJ, USA Community Outreach and Content Coordinator The goal of this project is to enable access to education in neuroscience to students in underserved communities, to tailor virtual or classroom lessons and materials for individual grade levels, from kindergarten to 12th grade and beyond, and provide lessons and materials to teachers, students and their caretakers in their native language (e.g., Spanish, Hindi, Russian, etc.).</p> <p>Writer, Kalinga Magazine, Ashoka University Writer, Pehchaan Magazine, Ashoka University</p>	<p>Jun 2020 – Present</p> <p>Aug 2020 – Present</p> <p>Sep 2018 – Nov 2019 Jan 2019 – Apr 2019</p>
CONFERENCES	<p>ATTENDED</p> <ul style="list-style-type: none"> ▪ No Garland Neuroscience, 2020 – IISER Pune ▪ Animal Behavior Society Conference 2020 ▪ JuliaCon 2020 ▪ Insect Navigation Workshop 2020, U of Sussex ▪ ICMNS 2020 ▪ Neuromatch 1.0, 2.0 ▪ OCNS*2020 : Computational Neuroscience conference ▪ ViDA 2020: Virtual Dopamine Conference 	
LANGUAGES	English, Malayalam, Hindi	
SKILLS	\LaTeX , X_{\LaTeX} , MATLAB, R, C/C++, Python, Java, GIMP, HTML, CSS, p5.js, Adobe Illustrator	
INTERESTS	Illustration, writing, music, hiking & cycling, science communication.	