# SHRADDHA SHAH

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#### **EDUCATION**

University of Rochester Medical Center	2016-2022
PhD, Neuroscience (to be conferred in August 2022)	2010-2022
University of Rochester Medical Center	2018
Master of Science, Neuroscience	
Thayer School of Engineering, Dartmouth College	2013
Master of Engineering Management	
Sardar Patel Institute of Technology, University of Mumbai	2011
Bachelor of Engineering, Electronics Engineering (top 10% in class)	
Summer courses attended	

Vision: A Platform for Linking Circuits, Behavior and Perception, Cold Spring Harbor Laboratory (June 2019)

## HONORS AND AWARDS

eLife Community Ambassador	Feb 2022-Sept 2023
Society for Neuroscience Trainee Professional Development Award	October 2021
UR Graduate Women in Science Mentoring-Up Resolution Challenge winner	May 2021
Messersmith & Goodman Fellowship, Neuroscience Graduate Program nominee	May 2021
Messersmith & Goodman Fellowship, Neuroscience Graduate Program nominee	May 2020
Helmsley Scholar, summer course in Vision at Cold Spring Harbor Laboratory	2018 - 2019
Fields Institute Travel Award to attend VISTA Mathematics of Vision workshop	2019
Schmitt Program in Integrative Neuroscience Travel Award to present at Society	for 2018
Neuroscience annual international conference	
Abraham Fellowship, Thayer School of Engineering	2011 - 2012
Global Engagement Summit Delegate, Northwestern University	2012
JRD Tata Trust Scholarship, University of Mumbai	2009 - 2010
Sir Dorabji Tata Trust Education Grant, University of Mumbai	2008 - 2009

## RESEARCH EXPERIENCE

Dissertation Research 2019 - 2022

Adviser: Farran Briggs, PhD

Thesis: Linking attentional modulation to neuronal feature-selectivity in macaque V1

Masters' Research 2016 - 2019

Adviser: Lizabeth M. Romanski, PhD

Research Topic: Memory and integration of faces and vocalizations in the primate prefrontal cortex: functional organization and neural mechanisms

2015 - 2016

## Research Experience

Adviser: Benjamin Y. Hayden, PhD

Research: Designed task for studying foraging behaviour in macaques, analyzed single-unit electrophysiology data in economic decision making tasks recorded from multiple regions of the primate prefrontal cortex

Adviser: Celeste Kidd, PhD

Research: Designed and ran a study to test curiosity and information seeking behaviour in kids (ages 3-8 years); analyzed behavioral data using general linear and mixed effect models using R

## Undergraduate Capstone Project

2010 - 2011

Adviser: Sanjay Gandhe, PhD

Research: Implemented a real-time gesture recognition algorithm on an ARM processor based embedded systems platform

#### **TALKS**

Invited talk, Plexon Neuroscience 2021 Data Blitz, "Attentional modulation of spike count correlations among pairs of anatomically connected V1 neurons" (Nov 12, 2021)

Invited talk, Growing-up-in-science style talk, NEUROCITY Dinner seminar, University of Rochester Medical center (July 29, 2021)

Accepted Talk, "Attention differentially modulates multiunit activity in the LGN and V1 of macaque monkeys", Neuromatch 3.0 conference (October 29, 2020)

Dept. Lunch Talk, "Attentional modulation of multiunit activity in LGN and V1", Department of Brain and Cognitive Sciences, University of Rochester (January 28, 2020)

Invited talk, "A conceptual overview of systems neuroscience research: functional organization and neural mechanisms", Eternal University, India (April 19, 2019)

Invited Poster Teaser Talk, "Inactivation of primate dorsolateral prefrontal cortex during auditory working memory", Annual Neuroscience Retreat, University of Rochester Medical Center (2017)

## PUBLICATIONS, POSTERS

- S. Shah, J. R. Hembrook-Short, V. Mock, F. Briggs (2022) Attentional modulation of spike count correlations among pairs of anatomically connected V1 neurons, <u>poster presentation</u>, Gordon Research Conference, Neurobiology of Cognition
- S. Shah, J. R. Hembrook-Short, V. Mock, F. Briggs (2022) Attentional modulation of spike count correlations among pairs of anatomically connected V1 neurons, <u>poster presentation</u>, Gordon Research Seminar, Neurobiology of Cognition
- S. Shah, J. R. Hembrook-Short, V. Mock, F. Briggs (2022) Attentional modulation of spike count correlations among pairs of anatomically connected V1 neurons, <u>poster presentation</u>, Center for Visual Science Symposium 2022, University of Rochester
- S. Shah\*, B. Carr, J. R. Hembrook-Short, V. Mock, F. Briggs (2021) Attentional modulation of spike count correlations among pairs of anatomically connected V1 neurons, <u>poster presentation</u>, Society for Neuroscience
- S. Shah\*, M. Mancarella, J. R. Hembrook-Short, V. Mock, F. Briggs (2021) <u>Attention differentially modulates multiunit activity in the LGN and V1 of macaque monkeys</u>, The Journal of Comparative Neurology
- S. Shah\*, M. Mancarella, J. R. Hembrook-Short, V. Mock, F. Briggs (2020) Attentional modulation of multiunit activity leads to facilitation of firing rates in V1, but not in LGN, <u>poster presentation</u>, Annual Neuroscience Retreat, University of Rochester Medical Center

- S. Shah\*, M. Mancarella, J. R. Hembrook-Short, V. Mock, F. Briggs (2020) Attentional modulation of multiunit activity leads to facilitation of firing rates in V1, but not in LGN, <u>poster presentation</u>, Center for Visual Science Annual Retreat, University of Rochester
- S. Shah\*, T. Lincoln, K. Kevelson, L. M. Romanski (2018) Memory and integration of faces and vocalizations in neuronal populations in the primate prefrontal cortex, <u>poster presentation</u>, Society for Neuroscience
- S. Shah\*, T. Lincoln, K. Kevelson, L. M. Romanski (2018) Memory and integration of faces and vocalizations in neuronal populations in the primate prefrontal cortex, <u>poster presentation</u>, Advances and Perspectives in Auditory Neuroscience
- S. Shah\*, B. Plakke, T. Lincoln, K. Kevelson, J. Bigelow, L. M. Romanski (2018) Effects of prefrontal lesions on auditory working memory, <u>poster presentation</u>, Annual Neuroscience Retreat, University of Rochester Medical Center
- S. Shah\*, B. Plakke, T. Lincoln, K. Kevelson, J. Bigelow, L. M. Romanski (2017) Inactivation of primate dorsolateral prefrontal cortex during auditory and visual working memory, <u>poster presentation</u>, Society for Neuroscience
- S. Shah\*, B. Plakke, T. Lincoln, K. Kevelson, J. Bigelow, L. M. Romanski (2017) Inactivation of primate dorsolateral prefrontal cortex during auditory and visual working memory, <u>poster presentation</u>, Advances and Perspectives in Auditory Neuroscience
- L.M. Romanski\*, J. Hwang, S. Shah, B. Plakke (2017) Responses of prefrontal neurons during enhancement of auditory discrimination with face distractors in nonhuman primates, <u>poster presentation</u>, International Multisensory Research Forum
- L.M. Romanski\*, B. Plakke, T. Lincoln, S. Shah, A. Poremba, J. Bigelow (2016) Inactivation of primate dorsolateral prefrontal cortex during auditory working memory, <u>poster presentation</u>, Society for Neuroscience

#### TEACHING EXPERIENCE

- Student mentor of UR undergraduate students Brenda Hernandez-Romero, Leen Khankan, UR2 Mentorship program, University of Rochester (Spring 2021, Fall 2021)
- Graduate Teaching Assistant: NSC 241/541 Neurons, Circuits, and Systems, University of Rochester (Fall 2019, Fall 2020)
- Graduate Teaching Assistant: NSC 547 Introduction to Computational Neuroscience, University of Rochester Medical Center (Summer 2020)
- Graduate Teaching Assistant: BCS 110 Neural Foundations of Behavior, University of Rochester (Spring 2016)
- Graduate Teaching Assistant: ENGS 1/9 Everyday Technology, Dartmouth College (2011)
- Graduate Teaching Assistant: MATLAB Lab, Dartmouth College (2011-12)

#### SERVICE & LEADERSHIP

- Invited panelist, Empowered Menteeship, Neuroeast highschool research program, East High School, Rochester, NY (April 2022)
- Invited panelist, Mentorship experiences in graduate school, Neuroscience Graduate Program Bootcamp for incoming students (August 2021)

<sup>\*</sup> presenting author

- Invited to lead discussion on 'Disability and Mental health in academia' in the Thalamus Trainees meeting series (June 2021)
- Invited student member, Del Monte Institute for Neuroscience Diversity Commission, leading projects on Cultural Transformation (2020 present)
- Co-founder and member, Neuroscience Graduate Program Student Solidarity Organization, University of Rochester Medical Center (2020 present)
- Invited student member, International Student Advisory Board (2020 2022)
- Student member, University of Rochester Women+ In the Neurosciences (2020 present)
- Advisory committee member for a first year graduate student in the Neuroscience Graduate Program (2017 2018, 2018 2019, 2020 2021, 2021 22)
- Invited member, Society for Neuroscience's Neuronline Community Leaders program (2018 2020)
- Led Systems Neuroscience journal club for incoming graduate students during the Neuroscience Graduate Program Bootcamp (August 2017, August 2018, August 2019)
- Brain Awareness week activities, University of Rochester Medical Center (2016, 2018)

## SCIENCE COMMUNICATION AND OUTREACH

- Invited speaker, BioMed Career Convention, South Brunswick High School (April 2022)
- Writing a blog titled "Theory and Interdisciplinarity in Neuroscience" (2019-2020, in hiatus)
- Participant in Skype-a-Scientist (2018 present)
- Gave a talk to introduce high school students to Systems Neuroscience research through the Science and Technology Entry Program (STEP) UP TO MEDICINE program at the University of Rochester School of Medicine and Dentistry (December 2017)

#### WORK EXPERIENCE

## Research Analyst, Lancaster General Health Innovative Solutions

2013 - 2014

Part of Lancaster General Health (LGH), Lancaster PA

### Summer Intern, VillageTech Solutions

2012

Non-profit organization developing and providing technology solutions for rural Nepal

#### Student Member, Design For America, Dartmouth College

2011 - 2012

Nationwide network of interdisciplinary student teams using design to address social challenges in health, economy, education and environment