Michelle Oraa Ali *Curriculum Vitae*

Massachusetts Institute of Technology
Brain and Cognitive Sciences
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Education

Mount Holyoke College, South Hadley, MA, USA
Bachelor of Arts, 2017. *Magna Cum Laude* with High Honors; *Phi Beta Kappa*.
Major: Neuroscience and Behavior. Minor: Graphic Narrative and Visual Storytelling
Thesis: *Prosody, Poetry and Processing: an ERP Investigation of Auditory Imagery*

Research

Brain and Cognitive Sciences, Massachusetts Institute of Technology.
Research Support Associate, LanguageLab. P.I. **Edward A Gibson**.

- Investigating prosody as a candidate for a cross-linguistic universal using PsiTurk, Hidden Markov Model Speech Recognition Toolkits for forced alignment, acoustic analyses via Praat and data analyses in R.

May 2017-Present

- Assisting visiting researcher, **Paula Rubio-Fernandez**, in investigating referential communication, Theory of Mind and lexical pragmatics.
- Collecting data via Amazon Mechanical Turk, event related potential (ERP) and functional magnetic resonance imaging (fMRI).
- Collecting and analyzing data for **Project Prakash**, in New Delhi, India an initiative from the **Sinha Lab** for Vision Research, MIT
- Prepared materials for ABCD in collaboration with researchers at **University of Edinburgh**

Neuroscience and Behavior, Mount Holyoke College
Feb 2015- Senior Thesis Research Assistant. P.I. **Mara Breen**.

- Employing ERP and eye-tracking techniques to investigate the role of rhythm in implicit prosody during silent reading of limericks.

Neuroscience and Behavior and Biological Sciences, Mount Holyoke College
Independent Research. P.I. **Renae Brodie**.

Oct 2016-Present

- Behavioural ecology research on the effect of unmanned aerial vehicles (drones) on urban avian populations.

Independent Research – MuSyC: Music, Synaesthesia, Color

Jan 2016-Present

- Using electrical engineering, signal processing, fabrication, data visualization and design to create a device which simulates chromesthetic synaesthesia.
- Technical demonstrations at MIT Media Lab, Universität Wien & Mount Holyoke College.

Biological Sciences, Mount Holyoke College
Research Assistant. P.I. **Craig Woodard**.

Jan 2015-Dec 2016

- Investigated role of orphan nuclear receptor, ßFTZ-F1, and neuropeptide secretion of steroid hormone, 20-hydroxyecdysone in development during the metamorphosis of *Drosophila melanogaster*.
- Utilized genetic engineering and molecular biology techniques in conjunction with light and fluorescence microscopy.

Janelia Research Campus, Howard Hughes Medical Institute.
Undergraduate Research Scholar. P.I. **Stephen Huston**.

Summer 2016

- Studied sensorimotor integration and context dependent behavior in *Drosophila melanogaster* using optogenetics, immunohistochemistry and confocal microscopy.

Teaching

Biological Sciences, Mount Holyoke College
Teaching Assistant, Cell Biology, 2016.

Psychology and Education, Mount Holyoke College
Teaching Assistant, Statistics for Psychology, 2014.

Neuroscience and Behavior, Mount Holyoke College
Tutor, Introduction to Neuroscience and Behavior, 2014-2015.

English, Africana Studies and Critical Social Thought, Mount Holyoke College
Teaching Assistant, Visual Culture of Protest, 2017

Honors and Awards

Phi Beta Kappa, Mount Holyoke College, South Hadley, MA USA

Sue Barry Award, Mount Holyoke College, South Hadley, MA USA

- Awarded to one graduating senior every year for demonstrating *"vision, joy and curiousity*" in the pursuit of research in science.

Languages

English (native), Hindi (native), Urdu(fluent), Sanskrit(reading), French(reading) Spanish(basic), German(basic)

Computer Expertise

R, Python, EPrime, Amazon Mechanical Turk, Javascript, MATLAB, LaTeX HTML, Arduino, SPSS, Ethovision, ImageJ++FIJI, Mesquite, StoryMap JS