

CONTACT INFORMATION	Massachusetts Institute of Technology Brain and Cognitive Sciences Cambridge, MA, USA 02136	ali26m@mholyoke.edu Phone: +1(413)437-3151 michelleoraaali.mit.edu
EDUCATION	Mount Holyoke College , South Hadley, MA Bachelor of Arts, Neuroscience and Behavior, Graphic Narrative and Visual Storytelling <ul style="list-style-type: none"> • <i>Phi Beta Kappa; Magna cum Laude</i> with High Honors in Neuroscience & Behavior • Thesis: <i>Prosody, Poetry and Processing:an ERP Investigation of Auditory Imagery</i> 	2013-17
RESEARCH EXPERIENCE	Massachusetts Institute of Technology <i>Research Support Associate, Brain and Cognitive Sciences</i> <ul style="list-style-type: none"> • Under supervision of Dr Edward Gibson • Investigated prosody as a candidate for a cross-linguistic universal in collaboration with Leon Bergen (UCSD). • Assisted in data collection via event related potential (ERP) and functional magnetic resonance imaging (fMRI) for Ev Fedorenko (MIT, Harvard, MGH). • Assisted visiting researcher, Paula Rubio-Fernandez (University of Oslo) in investigating referential communication, Theory of Mind & lexical pragmatics. • Collected and analyzed data for Project Prakash, in New Delhi, India - an initiative from the Sinha Lab for Vision Research (MIT). • Prepared stimuli and processed data for a referential communication task in collaboration with Hannah Rohde & Maddie Long (University of Edinburgh), Marta Bialecka-Pikul (Jagiellonian University) and Julian Jara-Ettinger (Yale University). 	2017-Present
	Janelia Research Campus , Howard Hughes Medical Institute <i>Undergraduate Research Scholar</i> <ul style="list-style-type: none"> • Under supervision of Dr Stephen Huston • Studied sensorimotor integration and context dependent behavior in <i>Drosophila melanogaster</i> using optogenetics, immunohistochemistry and confocal microscopy. 	Summer 2016
	Mount Holyoke College , South Hadley, MA [1] <i>Lead Student Investigator, Neuroscience & Behavior</i> <ul style="list-style-type: none"> • Under supervision of Dr Mara Breen • Employed ERP to investigate the role of rhythm and metrical structure in implicit prosody during silent reading of poetry. – Three-time recipient of Harap Fund Grant for Independent Research 	2015-Present
	[2] <i>Research Assistant, Neuroscience & Behavior</i> <ul style="list-style-type: none"> • Under supervision of Dr Renae Brodie • Behavioural ecology research on the effect of unmanned aerial vehicles (drones) on urban avian populations. 	2016-Present
	[3] <i>Research Assistant, Biological Sciences</i> <ul style="list-style-type: none"> • Under supervision of Dr Craig Woodard • Investigated role of orphan nuclear receptor, $\text{Å}\text{FTZ-F1}$, and neuropeptide secretion of steroid hormone, 20-hydroxyecdysone in development during the metamorphosis of <i>Drosophila melanogaster</i>. • Utilized genetic engineering and molecular biology techniques in conjunction with light and fluorescence microscopy. 	2015-16
	[4] <i>Research Assistant, Neuroscience & Behavior</i>	2014-15

- Under supervision of **Dr Jared Schwartz**
- Investigated mice models of autism spectrum disorder with neuroimmunological and behavioral neuroscience techniques with a focus on maternal immune asthma using social approach tasks in BTBR and C57 mice.

University of Pennsylvania,

Summer 2015

Undergraduate Research Fellow, Center for Cognitive Neuroscience

- Under supervision of **Dr Anjan Chatterjee**
 - In collaboration with **Children's Hospital of Pennsylvania** and **Center for Human Appearance**, conducted an independent research project on the social responses to facial appearance, specifically focusing on craniofacial disfigurement.
 - Constructed corpus of images of patients who underwent reconstructive surgeries, experimental design via Qualtrics, data collection via Amazon Mechanical Turk and data visualization
- Recipient of Harap Fund Grant for Independent Research

JOURNAL PUBLICATIONS

- [1] Jamrozik, A.; **Oraa Ali, M.**; Sarwer, D. & Chatterjee, A.(2017). More than skin deep: Judgments of individuals with facial disfigurement. *Journal of Psychology of Aesthetics, Creativity and the Arts*.
- [2] Rubio-Fernandez, P.; Mollica, F.; **Oraa Ali, M.** & Gibson, E.A.(2018) How do you know that? Automatic belief inferences in passing conversation. *Submitted; in review*.

PUBLICATIONS IN PREPARATION

- [3] **Oraa Ali, M.**; Fitzroy, A.B. & Breen, M.(2018) Prosody, Poetry and Processing: ERP Evidence for Rhythmic Structure in Silent Reading. *Manuscript in preparation*.

AWARDS

- [1] **Diversity Enhancement Award**, 43rd Boston University Conference on Language Development. 2018
- [2] **Student Travel Award**, 31st CUNY Sentence Processing Conference. 2018
- [3] **Finalist, Hacking Arts Hackathon**, MIT Media Lab 2016
- [4] **Robert Frances Award (Outstanding Student Research Contribution)** International Association of Empirical Aesthetics, Vienna, Austria 2016
- [5] **NIDCR Building Bridges Travel Award**, National Institute of Health 2016
- [6] **Student Caucus Travel Award**, Association of Psychological Science 2016
- [7] **Most Interdisciplinary Project: MuSyC**, Hampshire Hackathon 2016
 - Across themes of Brain & Development, Artificial Intelligence, Life Hacks and Environment.

Mount Holyoke College:

- [8] **Sue Barry Award**, 2017
 - Awarded to one graduating senior every year for demonstrating "*vision, joy and curiosity*" in the pursuit of research in science.
- [9] **Phi Beta Kappa** 2017
- [10] **Mary Lyon Scholar** 2017
- [11] **Academic Excellence Award**, Neuroscience & Behavior 2017, 2016
- [12] **President and Dean of College Fund** 2016

GRANTS AND
FELLOWSHIPS

- Five College Digital Humanities**, Five College Consortium & The Andrew W. Mellon Foundation
- [13] **Five College Digital Humanities Student Fellowship** 2016-17
- [14] **Five College Digital Humanities Summer Student Fellowship** 2016
- [15] **Five College Digital Humanities Microgrant** 2016
- Mount Holyoke College**
- [16] **Harap Fund Grant for Independent Research** 2016, 2017, (2018 x 2)
• For pursuit of independent research and travel (*four time recipient*).
- [17] **21st Century Scholarship for Academic Excellence** 2013-17
- [18] **MakerSpace Grant** 2016 x 2
• For the development of MuSyC (*two time recipient*).
- [19] **Laurel Fellowship** 2015-16
• For pursuit of study in *Cognitive Neuroscience and Evolutionary Biopoetics* at the **University of Maastricht, The Netherlands** [*Declined due to pursuit of on-campus research opportunities*]
- [20] **LYNK-UAF Grant - Pursuit of Scientific Research** 2015
• For pursuit of independent research anywhere of one's choosing.

CONFERENCE
TALKS

Presenting Author Indicated with *

- [1] **Oraa Ali, M.**, Fitzroy, A.B., & *Breen, M. Prosody, Poetry and Processing: ERP Evidence for Hierarchical Metrical Structure in Silent Reading. *15th International Conference on Music Perception and Cognition and 10th triennial conference of the European Society for the Cognitive Sciences of Music*. Montreal, Canada. 23-28 July 2018.
- [2] **Oraa Ali, M.**, Fitzroy, A.B., & *Breen, M. Prosody, Poetry and Processing: ERP Evidence for Rhythmic Structure in Silent Reading. *31st CUNY Conference on Human Sentence Processing*, University of California, Davis, CA. 15-17 March 2018.
- [3] ***Oraa Ali, M.**; McCune, C.; Sano, K. MuSyC: Music, Synaesthesia, Colour. *Art and Science symposium at the 24th Conference of the International Association of Empirical Aesthetics*. Universitat Wien, Vienna, Austria. 29 August - 1 September 2016.

CONFERENCE
POSTERS

- [4] *Rubio-Fernandez, P.; ***Oraa Ali, M.**, & Gibson, E.A. Epistemic inferences in passing conversation: Pragmatics as a test of Theory of Mind accounts. *31st CUNY Sentence Processing Conference*. University of California, Davis, USA. 15-17 March 2018.
- [5] ***Oraa Ali, M.**; Fitzroy, A.B. & Breen, M. Prosody, Poetry and Processing: ERP Evidence for Rhythmic Structure in Silent Reading. *11th Cornell Undergraduate Linguistics Colloquium*. Cornell University, Ithaca, NY. 29-30 April 2017. [*absent due to illness*]
- [6] ***Oraa Ali, M.**; Jamrozik, A.; Sarwer, D. & Chatterjee, A. Interpersonal judgments of individuals with facial disfigurement before & after treatment. *24th Conference of the International Association of Empirical Aesthetics*. Universitat Wien, Austria. 29 August - 1 September 2016.
– Recipient, **Robert Frances Award** and **Third Best Poster prize**.

[7] ***Oraa Ali, M.** & Huston, S.J. Behavioral Effects of Single Visual Neuron Stimulation. *Janelia Research Symposium, Janelia Research Center*, Ashburn, VA. 3 August 2016.

[8] ***Oraa Ali, M.**; Jamrozik, A.; Sarwer, D. & Chatterjee, A. Interpersonal judgments of individuals with facial disfigurement before and after treatment. *28th Annual Convention of the Association for Psychological Science*. Chicago, IL. 26-29 May 2016.
 – Winner, **Building Bridges Poster Award**, National Institute of Dental & Craniofacial Research, National Institute of Health, USA.

[9] ***Oraa Ali, M.**; Jamrozik, A.; Sarwer, D. & Chatterjee, A. Interpersonal judgments of individuals with facial disfigurement before and after treatment. *North-east Undergraduate Research on Neuroscience (NEURON)*. Quinnipiac University, CT, UAA. 28 February 2016.

[10] ***Nanda, P.**;Emerson, F.;Schwartz, A.;**Oraa Ali, M.**; Steffens, E. & Schwartz J.J. Maternal Immune Activation & Social Cognition: A model for environment effects on the development of social behavioral deficits in autism spectrum disorders.*Northeast Undergraduate Research on Neuroscience (NEURON)*. Quinnipiac University, CT, USA. 22 February 2015.

DEMOS

[11] ***Oraa Ali, M.** MuSyC: Music, Synaesthesia and Art. *4th Digital Humanities Symposium and Fellows Showcase*, Five College Digital Humanities, Amherst College, MA, USA. 6 May 2017.

[12] ***Oraa Ali, M.** MuSyC: Music, Synaesthesia, Color. *Remixing Senses, Tech Expo, Hacking Arts Conference*, MIT Media Lab, Cambridge, MA, USA. 19 November 2016.

[13] ***Oraa Ali, M.** MuSyC: Integrating Art and Science. *3rd Digital Humanities Symposium and Fellows Showcase*, Five College Digital Humanities, Amherst College, MA, USA. 30 April 2017.

TEACHING

Mount Holyoke College, South Hadley, MA

[1] **Teaching Assistant, Visual Culture of Protest** Spring 2017
English, Africana Studies and Critical Social Thought

- Provided technical and research support for advanced seminar of 27 students.
- Facilitated discussion about visual archives of protest and revolution from second half of the 20th century.
- Responsible for curating content for course related social media and outreach.

[2] **Laboratory Teaching Assistant, Cell Biology** Spring 2016
Biological Sciences

- Taught scientific techniques such as epifluorescence microscopy, protein purification and polymer chain reaction to group of 50 students.

[3] **Teaching Assistant, Statistics for Psychology** 2014-15
Psychology & Education

- Taught fundamental statistical concepts and SPSS, and provided academic support to a class of 72 students.

[4] **Tutor, Introduction to Neuroscience & Behavior** 2014-15
Neuroscience & Behavior

- Provided one on one tutoring for students in introductory neuroscience course.

SERVICE

- [1] **Judge, Massachusetts State Science & Engineering Fair, MIT** 2018
 - Evaluated projects of high school students in the theme of Behavioral Science.
- [2] **Student Liaison, Neuroscience & Behavior, Mount Holyoke College** 2016-17
 - Provided mentorship to peers about pursuing research in neuroscience, course planning and academic strategies.
- [3] **Student Resource, AccessAbility Services, Mount Holyoke College** 2014-17
 - Provided peer academic support for students in AccessAbility Services for several courses: **Organic Chemistry, Research Methods in Psychology, Cognitive Psychology, Evolution and Neurobiology.**
- [4] **Mentor, Mount Holyoke Girls in Technology Conference** 2017
 - Volunteer. MHCGIT invites high school girls from all over Massachusetts to a one-day immersive experience, as they learn more about technology and its pervasiveness in almost every field. Through hands-on workshops, talks, bonding, and mentorship, it aims to break stereotypes, and highlight the importance of women in tech-related fields. (*absent due to illness*)
- [5] **Zine Coordinator, OUTreach, Mount Holyoke College** 2015-16
 - Curated the 3rd annual Gender & Sexuality Zine "*What is Pride?*" [\[PDF\]](#)
 - Facilitated panel about experiences of queer international students at the first Mount Holyoke Queer Alum conference.
 - Helped organize events about intersectional feminism, activism and inter-group solidarity and provide support for LGBT students on campus.
- [6] **Co-President, Neuroscience Student Forum, Mount Holyoke College** 2015-16
 - Helped student-led journal club to discuss different topics in neuroscience.
 - Curated a collaborative neuroscience related art exhibition for Brain Awareness week entitled: "*Synapse: Bridging the Gap Between Art and Science*".
- [7] **Volunteer Presenter, The Franklin Institute, Philadelphia, PA** 2015
 - Showcased eye tracker technology in the perception of visual art at *Science After Hours* event in "ART + SCIENCE".

NON-ACADEMIC
POSITIONS

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- [1] **Archives & Special Collections, Mount Holyoke College, USA** 2015-17
Student Archivist
 - Curated an exhibition for the 40th anniversary of LGBTQ college organizations and in honor of the "The Astronomer".
 - Catalogued the feminist zine collection followed by digital data visualization.
 - [2] **Science & Technology, Deccan Chronicle, India** 2011-13
Journalist
 - Wrote articles about the representation of women, LGBTQ and disabled individuals for a weekly segment for a national newspaper.
 - [3] **Freelance Illustrator** 2006-Present
 - Illustrated literary journals, designed covers for programs & magazines, created logos for organizations and fundraising events.
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OTHER
INDEPENDENT
PROJECTS

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- [1] **Radio DJ and Sound Engineer** 2014-Present
 - DJ and Engineer for "Colourless Green Ideas Sleep Furiously" for 4 seasons on WMBR 88.1 FM, Cambridge, MA
 - DJ for 7 seasons on WMHC 91.5 FM, South Hadley, MA
 - [2] **MuSyC: Music, Synaesthesia, Color** 2016-Present

	<ul style="list-style-type: none"> • Used electrical engineering, signal processing, fabrication, data visualization, rapid prototyping and design to create a device which simulates chromesthetic synaesthesia. • Currently developing a real-time music visualizer for the WMBR website. [Link to Current Beta version] 																																								
SKILLS	<hr/> <p>Programming:</p> <ul style="list-style-type: none"> • Most Experience with R, JavaScript, HTML, CSS • Basic Experience with Python, UNIX, EPrime, Arduino, MATLAB, L^AT_EX <p>Software and Platforms:</p> <ul style="list-style-type: none"> • Amazon Mechanical Turk, PsiTurk, IbexFarms, GEPHI, Praat, SPSS, Adobe Photoshop and Illustrator, StoryMap^{JS}, Qualtrics, Mesquite, ImageJ⁺⁺, FIJI, Ethovision, AutoCAD <p>Neuroscience:</p> <ul style="list-style-type: none"> • 3 years of experience with Event-related potential(<i>ERP</i>) -BioSemi ActiView system • Basic experience with <i>eye-tracking</i>, functional magnetic resonance imaging (<i>fMRI</i>) corpus construction, rodent behavioral testing and stereotaxic surgery, optogenetics. <p>Other:</p> <ul style="list-style-type: none"> • Proficient at Drone piloting, surveillance • Proficient at illustration and graphic design (digital and traditional media) • Basic experience with sound engineering and radio broadcast engineering • Basic experience with fabrication (3D printing and laser cutting) <hr/>																																								
ART SHOWS	<p>Solo Shows</p> <table> <tr> <td>[1] Experimental Art Gallery, India Habitat Centre, New Delhi, India</td> <td>2016</td> </tr> <tr> <td colspan="2">- Title: "Curiouser & Curiouser: An Experimental Exhibition about Paintbrushes & Petridishes"</td> </tr> <tr> <td>[2] Blanchard Student Art Gallery, South Hadley, MA, USA</td> <td>2016</td> </tr> <tr> <td colspan="2">- Title: "Curiouser & Curiouser: Integrating Art and Science"</td> </tr> <tr> <td>[3] Convention Centre, India Habitat Centre, New Delhi, India</td> <td>2007</td> </tr> <tr> <td colspan="2">- Title: "More Than Meets The Eye"</td> </tr> </table> <p>Group Shows</p> <table> <tr> <td>[4] Blanchard Student Art Gallery, South Hadley, MA</td> <td>2016</td> </tr> <tr> <td colspan="2">- Title: "Synapse: Bridging the Gap Between Art and Science"</td> </tr> <tr> <td>[5] Olympia Art Collective, Northampton, MA, USA</td> <td>2016</td> </tr> <tr> <td colspan="2">- Title: "<i>Women Artists for Women Artists</i>".</td> </tr> <tr> <td>[6] Olympia Art Collective, Mount Holyoke Art Studio, South Hadley, MA, USA</td> <td>2016</td> </tr> <tr> <td colspan="2">- Title: "<i>Presenting Olympia</i>". Mount Holyoke Art Studio, South Hadley.</td> </tr> <tr> <td>[7] KRITI + Alliance Francaise de Delhi, New Delhi, India</td> <td>2011</td> </tr> <tr> <td colspan="2">- Title: "EcoFestival, Exhibition by Professional Artists".</td> </tr> <tr> <td>[8] Bienal Izmir, Izmir, Turkey</td> <td>2011</td> </tr> <tr> <td colspan="2">- Title: "1.International Izmir Modern Arts"</td> </tr> <tr> <td>[9] Biennale Chianciano, Museo d'Arte, Chianciano Terme, Italy</td> <td>2009</td> </tr> <tr> <td colspan="2">- Title: "International Exhibition of Contemporary Arts"</td> </tr> <tr> <td>[10] HelpAge India, The Oberoi, New Delhi, India</td> <td>2008</td> </tr> <tr> <td colspan="2">- Title: "Art for Aged"</td> </tr> </table> <hr/>	[1] Experimental Art Gallery, India Habitat Centre, New Delhi, India	2016	- Title: "Curiouser & Curiouser: An Experimental Exhibition about Paintbrushes & Petridishes"		[2] Blanchard Student Art Gallery, South Hadley, MA, USA	2016	- Title: "Curiouser & Curiouser: Integrating Art and Science"		[3] Convention Centre, India Habitat Centre, New Delhi, India	2007	- Title: "More Than Meets The Eye"		[4] Blanchard Student Art Gallery, South Hadley, MA	2016	- Title: "Synapse: Bridging the Gap Between Art and Science"		[5] Olympia Art Collective, Northampton, MA, USA	2016	- Title: " <i>Women Artists for Women Artists</i> ".		[6] Olympia Art Collective, Mount Holyoke Art Studio, South Hadley, MA, USA	2016	- Title: " <i>Presenting Olympia</i> ". Mount Holyoke Art Studio, South Hadley.		[7] KRITI + Alliance Francaise de Delhi, New Delhi, India	2011	- Title: "EcoFestival, Exhibition by Professional Artists".		[8] Bienal Izmir, Izmir, Turkey	2011	- Title: "1.International Izmir Modern Arts"		[9] Biennale Chianciano, Museo d'Arte, Chianciano Terme, Italy	2009	- Title: "International Exhibition of Contemporary Arts"		[10] HelpAge India, The Oberoi, New Delhi, India	2008	- Title: "Art for Aged"	
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