Aditya **Upadhyayula**

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International student on F-1 visa

Education

2016-Present	**Johns Hopkins University, Baltimore, MD**, PhD. Psychological & Brain Sciences
2016-2018	**Johns Hopkins University, Baltimore, MD**, M.A. Psychological & Brain Sciences
2015-2016	**North Carolina State University, Raleigh, NC**, M.S. Electrical & Computer Engineering
2008-2013	**Birla Institute of Technology & Science, Pilani, India**, M.Sc. Physics, B.E.(Hons) Electronics & Communications Engineering

Research Experience

August 2019 – Present — **Visiting Student, Tilburg University, Netherlands**
Developing computational methods using psycholinguistic theories to understand narrative comprehension in comics
Visual Language Lab | Advisor : Dr. Neil Cohn

August 2016 – Present — **Graduate Student, Johns Hopkins University, Baltimore, MD**
Developing computational methods, using psychophysics & eye tracking to understand performance limits in visual cognition & perception
Visual Thinking Lab | Advisor : Dr. Jonathan Flombaum

August 2015 – May 2016 — **Graduate Student, North Carolina State University, Raleigh, NC**
Developed computational methods using signal & image processing to remove resipratory artifacts in MRI scans
Advisor : Dr. David S. Lalush

January 2016 – May 2016 — **Graduate Research Assistant, University of North Carolina , Chapel Hill, NC**
Built an EEG processing pipeline & analyzed for frontal asymmetries in the resting state EEG data of patients with Major Depressive Disorder
Advisor : Dr. Flavio Frohlich

August 2014 – December 2014 — **Research Assistant, Indian Institute of Science , Bengaluru, KA**
Programmed & Assisted in building a robotic arm to study motor control of eye-hand coordination in humans
Advisor : Dr. Aditya Murthy

Jan 2013 – July 2014 — **Research Assistant, Indian Institute of Science , Bengaluru, KA**
Developed prototypes & wrote algorithms for an autonomous Indoor Positioning System that can be used for navigating first responders during disaster management
Advisor : Dr. K.V.S. Hari

Teaching

Spring 2020	Instructor - Cognitive Neuroscience, Johns Hopkins University
Fall 2019	Instructor - Research Methods, Johns Hopkins University
Spring 2019	Instructor - Design & Experimental Analysis, Johns Hopkins University
Fall 2018	Teaching Assistant - Sensation & Perception, Johns Hopkins University
Spring 2018	Teaching Assistant - Introduction to Cognitive Psychology, Johns Hopkins University
Fall 2017	Teaching Assistant - Introduction to Psychology, Johns Hopkins University

Publications (Manuscripts in prep & Under review)

2021 **Upadhyayula S.A.**., Ian B. Phillips & Flombaum. J.I. (*In prep*). Space and time dissociate in the construction of a Visual Moment

2021 **Upadhyayula S.A.**., Ian B. Phillips & Flombaum. J.I. (*In prep*). Subjective expansion of Time happens in our immediate memory, but not perceptual experience

2021 **Upadhyayula S.A.**., Ian B. Phillips & Flombaum. J.I. (*In prep*). Before, Now & After. A review on temporal properties of perception

2020 **Upadhyayula S.A.**., & Flombaum. J.I. (2020). "A model that adopts human fixations explains individual differences in multiple object tracking." Cognition (2020) : 104418.g [link]

Conferences

2020 **Aditya Upadhyayula**,& Neil Cohn. Hierarchical Structure in Processing Visual Narratives : A computational investigation, talk presented part of symposium at CogSci. 2020

2020 **Aditya Upadhyayula**, Ian Phillips & Flombaum. J.I. Space and Time Dissociate in the construction of the Visual Now, talk presented at V-VSS 2020

2020 Ian Phillips, **Aditya Upadhyayula** & Flombaum. J.I. Tachyspychia - subjective expansion of time - happens in immediate memory, and not in perceptual experience, poster presented at V-VSS 2020

2019 **Upadhyayula, Shanmukha**, and Jonathan Flombaum, "Distortions of time perception", presented at Mid Atlantic Memory and Attention conference

2019 **Upadhyayula, Shanmukha**, and Jonathan Flombaum, Two distortions of perceived space and time, presented at Object Perception Attention & Memory (OPAM)

2019 **Upadhyayula, Shanmukha**, and Jonathan Flombaum, The Visual Now across the visual field, presented at Captial Area Cognition Action & Perception

2018 **Upadhyayula, Shanmukha**, and Jonathan Flombaum, "Object size affects multiple object tracking performance (but not via frequency of close encounters)." Journal of Vision 18.10 (2018) : 1020-1020.

Selected Talks

2021 [*Upcoming*] Yale University, CT - Cognitive & Neural Computation Lab (PI : Ilker Yildirim)

2021 [*Upcoming*] University of California, Davis, CA - Visual Cognition Group (PI : John Henderson)

2021 New York University - Ma Lab (PI : Weiji Ma)

2020 Tilburg University, Netherlands - Groningen-Tilburg joint workshop on Pictorial narrative comprehension

2020 University of California, San Diego, CA - Cognitive tools lab (PI : Judith Fan)

2019 Villanova University, PA - Mid Atlantic meeting on Memory & Action

2018 Georgetown University, DC - Captiol Area conference on Cognition, Action & Perception

2018 Johns Hopkins University - Seminar on Computational Psycholinguistics (PI : Tal Linzen)

2018 Johns Hopkins University - Dynamic Perception Group (PI : Jason Fischer)

2017 Johns Hopkins University - Computational Cognition, Vision & Learning group (PI : Alan Yuille)

2017 Johns Hopkins University - Honey Lab (PI : Chris Honey)

Skills

Programming	**Python MATLAB**, **R**, **C**, **Eye Tracking**, EEG processing, Javascript, HTML, Java
Operating Systems	MacOs, Linux, Windows
Software	**PyTorch**, **Psychopy**, **Psychtoolbox**, **Plotly**, Tensorflow, Eyelink 1000 plus, EEGLAB

Honors and Awards

2019 Travel Award, Object Perception Attention and Memory conference

2019 Departmental Collaborative Research Grant Award | Topic : Individual differences in temporal integration of music

2016 – present Robert S. Waldrop Graduate Student Fellowship

References

Jonathan Flombaum
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Justin Halberda
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Johns Hopkins University
halberda@jhu.edu

Neil Cohn
Associate Professor
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