





# Aditya UPADHYAYULA

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 International student on F-1 visa

## EDUCATION

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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

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August 2019 Present	<b>Visiting Student, TILBURG UNIVERSITY, Netherlands</b> Developing computational methods using psycholinguistic theories to understand narrative comprehension in comics <div>Visual Language Lab   Advisor : Dr. Neil Cohn</div>
August 2016 Present	<b>Graduate Student, JOHNS HOPKINS UNIVERSITY, Baltimore, MD</b> Developing computational methods, using psychophysics & eye tracking to understand performance limits in visual cognition & perception <div>Visual Thinking Lab   Advisor : Dr. Jonathan Flombaum</div>
August 2015 May 2016	<b>Graduate Student, NORTH CAROLINA STATE UNIVERSITY, Raleigh, NC</b> Developed computational methods using signal & image processing to remove respiratory artifacts in MRI scans <div>Advisor : Dr. David S. Lalush</div>
January 2016 May 2016	<b>Graduate Research Assistant, UNIVERSITY OF NORTH CAROLINA, Chapel Hill, NC</b> Built an EEG processing pipeline & analyzed for frontal asymmetries in the resting state EEG data of patients with Major Depressive Disorder <div>Advisor : Dr. Flavio Frohlich</div>
August 2014 December 2014	<b>Research Assistant, INDIAN INSTITUTE OF SCIENCE, Bengaluru, KA</b> Programmed & Assisted in building a robotic arm to study motor control of eye-hand coordination in humans <div>Advisor : Dr. Aditya Murthy</div>
Jan 2013 July 2014	<b>Research Assistant, INDIAN INSTITUTE OF SCIENCE, Bengaluru, KA</b> Developed prototypes & wrote algorithms for an autonomous Indoor Positioning System that can be used for navigating first responders during disaster management <div>Advisor : Dr. K.V.S. Hari</div>

## TEACHING

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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)

- 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]
- 2020 **Upadhyayula S.A.**, Ian B. Phillips & Flombaum. J.I. (*In prep*). Space and Time Dissociate in the construction of a Visual Moment
- 2020 **Upadhyayula S.A.**, Ian B. Phillips & Flombaum. J.I. (*In prep*). Subjective Expansion of Time happens in our immediate memory, but not perceptual experience

## 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. Tachypsychia - 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 Robert S. Waldrop Graduate Student Fellowship  
present

## REFERENCES

**Jonathan Flombaum**  
Associate Professor  
JOHNS HOPKINS UNIVERSITY  
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**Justin Halberda**  
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JOHNS HOPKINS UNIVERSITY  
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**Neil Cohn**  
Associate Professor  
TIBURG UNIVERSITY  
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