# **EDUCATION**

**2017 – 2022 Boston University**

*(anticipated)* PhD Candidate, Computational Neuroscience

Graduate Program in Neuroscience

**2013 – 2017 Tufts University**

B.S., *magna cum laude*, Thesis Honors

Cognitive & Brain Science, Computer Science

Senior Honors Thesis: *Optimizing fPET-FDG*

# **TRAINING**

**2017 – Present Department of Psychological & Brain Sciences, Boston University**

Cognitive Neuroimaging Lab

*PhD Student Researcher*

*Mentor*: Chantal Stern, DPhil

**Spring 2020** **MIT IMPACT Program**

*Fellow*

**2017 – 2018 Department of Psychological & Brain Sciences, Boston University**

Attention & Perception Neuroimaging Lab

*Lab Rotation & Collaborating PhD Student*

*Mentor*: David Somers, PhD

**2015 – 2017 A. A. Martinos Center for Biomedical Imaging,**

**Massachusetts General Hospital, Harvard Medical School**

Hooker Research Group

*Research Intern*

*Mentors*: Hsiao-Ying Wey, PhD, and Jacob Hooker, PhD

**2014 – 2015 Department of Psychology, Tufts University**

Memory and Cognition Lab

*Undergraduate Research Assistant*, May 2014 - May 2015

*Mentor*: Richard Chechile, PhD

# Honors and awards

2020 Third Prize, BU Grad. Prog. for Neuro. Interview Days Poster Session

2017 Honorable Mention, NSF Graduate Research Fellowship Program

2017 Joanne Mary Sullivan Prize, Tufts University Psychology Department

2017 Barton Term Scholar for Arts and Sciences, Tufts University

2016 SpaceX People’s Choice Award, Out for Undergrad Engineering Conference

2016 Greg Ellenoff Internship Grant, Tufts University Career Center

2016 Psi Chi Honor Society, Tufts University Chapter

# **PUBLICATIONS**

## **FORTHCOMING**

**Morin, T.M.,** Moore, K.N., Isenburg, K.I., Ma, W., & Stern, C.E. Reconfiguration and activation of a frontoparietal-visual system supports abstract reasoning. *(in prep.)*

Moore, K.N., **Morin, T.M.**, Rosen, M.L., Somers, D.C., & Stern, C.E. Default mode precuneus and its role in long term memory-guided versus stimulus-guided attention. *(in prep.)*

## **Published MANUSCRIPTS**

*Selected manuscript PDFs are available at* [*https://www.tmmorin.com/work*](https://www.tmmorin.com/work)

**Morin, T.M.,** Chang, A.E., Ma, W., McGuire, J.T. & Stern, C.E. (2021). Dynamic network analysis demonstrates the formation of stable functional networks during rule learning. *Cerebral Cortex*. <https://doi.org/10.1093/cercor/bhab175>

Gilbert, T.M., Zurcher, N.R., Wu, C.J., Bhanot, A., Hightower, B.G., Kim, M., Albrecht, D.S., Wey, H.Y., Schroeder, F.A., Rodriguez-Thompson, A., **Morin, T.M.**, Hart, K.L., Pellegrini, A.M., Riley, M.M., Wang, C., Stufflebeam, S.M., Haggarty, S.J., Holt, D.J., Loggia, M.L., Perlis, R.H., Brown, H.E., Roffman, J.L., Hooker, J.M. (2019). PET neuroimaging reveals histone deacetylase dysregulation in schizophrenia. *The Journal of Clinical Investigation*. <https://doi.org/10.1172/JCI123743>

Strebl, M.G., Campbell, A., Zhao, W.N., Riley, M.M., Chindavong, P., **Morin, T.M.**, Haggarty, S.J., Wagner, F.F., Ritter, T., Hooker, J.M. (2017). HDAC6 Brain Mapping with [18F]Bavarostat Enabled by a Ru-Mediated Deoxyfluorination. *ACS Central Science*. 3(9), 1006-1014 [http:/dx.doi.org/ 10.1021/acscentsci.7b00274](http://dx.doi.org/%2010.1021/acscentsci.7b00274)

Placzek, M.S., Zhao, W., Wey, H.Y., **Morin, T.M.**, & Hooker, J.M. (2015). PET neurochemical imaging modes. *Seminars in Nuclear Medicine*, 46(1), 20-27 <http://dx.doi.org/10.1053/j.semnuclmed.2015.09.001>

# **CONFERENCE POSTERS & PRESENTATIONS**

*Selected poster PDFs and presentation slides are available at* [*https://www.tmmorin.com/work*](https://www.tmmorin.com/work)

Isenburg, K., **Morin, T.M.**, Rosen, M.L., Somers, D.C., & Stern, C.E. *Network interactions during long-term memory guided versus stimulus-guided attention in humans*. Society for Neuroscience. 2021. Chicago, IL. (*Accepted*) [Poster]

Liapis, S.S.P., **Morin, T.M.**,McGuire, J.T., & Stern, C.E.*The dimensionality of representational space calibrates to abstract reasoning complexity.* Organization for Human Brain Mapping. 2021. (Online Meeting, Due to COVID-19) [Poster]

**Morin, T.M.**, Ma, W., Chang, A.E., & Stern, C.E. *Dynamic functional connectivity during context-dependent rule learning*. Organization for Human Brain Mapping. 2020. (Online Meeting, Due to COVID-19) [Poster]

**Morin, T.M.**, Moore, K.N., & Stern, C.E. *An fMRI investigation of functional network connectivity during abstract reasoning*. Cognitive Neuroscience Society Annual Meeting. 2020. (Online Meeting, Due to COVID-19). [Poster]

**Morin, T.M.**, Chang, A.E., & Stern, C.E. *Cortical contributions to perceptual and symbolic reasoning using a one-dimensional raven’s progressive matrices task.* Society for Neuroscience. 2019. Chicago, IL. [Poster]

Ma, W., **Morin, T.M.**, Chang, A.E., & Stern, C.E. *An fMRI investigation of medial prefrontal network dynamics during a context-dependent rule learning task.* Society for Neuroscience. 2019. Chicago, IL. [Poster]

**Morin, T.M.** *Frontoparietal Control Network Contributions to Abstract Reasoning*. Boston University Graduate Program for Neuroscience Annual Retreat. 2019. Essex, MA. [Presentation]

**Morin, T.M.**, Chang, A.E., & Stern, C.E. *An fMRI investigation of symbolic processing using a one-dimensional raven’s progressive matrices task*. Henry I. Russek Student Achievement Day. 2019. Boston University, Boston, MA. [Poster]

Cohen, J.E., **Morin, T.M.**, & Stern, C.E. *Theta oscillations at critical junctures of overlapping mazes*. Cognitive Neuroscience Society Annual Meeting. 2018. Boston, MA. [Poster]

**Morin, T.M.** & Wey, H.Y. *Optimizing fPET-FDG*. Cognitive & Brain Science Senior Symposium. 2017. Tufts University, Medford, MA. [Poster]

**Morin, T.M.** *Branching Out: What a Tree Can Teach You About Your Brain?* Out For Undergrad Engineering Conference. 2016. Stanford University, Palo Alto, CA. [Presentation]

**Morin, T.M.** *Creating a Computer Simulation Tool for PET Neuroimaging*. Tufts University Undergraduate Research and Scholarship Symposium. 2016. Tufts University, Medford, MA. [Presentation]

# TEACHING

2021 Guest Lecturer, Cog. *Neuro. of Reasoning*, Course: Grad. Cog. & Behavior, BU

2018-2021 Guest Lecturer, *Intro to Neuroimaging*, Course: Intro to Cog. & Brain Sci., Tufts

2017 Teaching Assistant, Introduction to Cognitive & Brain Science, Tufts University

2016 Teaching Assistant, American Sign Language I, II, and III, Tufts University

# Mentorship

2020-2021 Bliss Cui, *Boston University, Undergrad Neuroscience Student Org. Mentee*

2020-Present Jiahe Nu, *Boston University, High School RA, Undergraduate RA*

2019-2020 Roberto Luis-Fuentes, *Boston University, BME Senior Thesis Project*

2019-2020 Vincent Chang, *Boston University, BME Senior Thesis Project*

2019 Sheila Yee, *Boston University, Undergraduate Directed Study Student*

2018-2020 Weida Ma, *Boston University, Undergraduate RA, BME Senior Thesis Project*

2018 Neoreet Braha, *Boston University, Undergraduate Research Assistant*

# Additional experience

2021 Volunteer Editor, Application Statement Feedback Program

2020-Present Graduate Coach, InGenius Prep | College Admissions Consulting

2017-2019 Volunteer Mentor to a High School Student, Big Brothers Big Sisters

2015-2017 Class of 2017 Representative, Tufts Psychology Society

# SKills

## **Programming Languages**

* “Fluent” in R, Python, MATLAB, Shell Scripting
* Comfortable with C, C++
* Experience with HTML/CSS, Lisp

## **Neuroimaging & ExperIMENTAL Software**

* AFNI, FSL, Freesurfer, Conn Toolbox, PMOD
* BIDS-compatible pipelines including fmriprep and NiBetaSeries
* PsychoPy; some experience with ePrime, and PsychToolbox

## **Key Concepts**

* Cognitive neuroscience of abstract reasoning, learning, and memory
* Network science and graph-based analyses of functional connectivity data
* Kinetic modeling and analysis of functional PET neuroimaging data
* fMRI and PET study design, data collection, and analysis