# WASITA MAHAPHANIT

wasita@brown.edu

#### **EDUCATION**

B.S. Brown University

2014 - 2018

Cognitive Neuroscience

Relevant coursework: Affective Neuroscience, Computational Cognitive Neuroscience, Computer Vision, Deep Learning, Research Methods & Design, Computational Methods in Mind, Brain, & Behavior, fMRI Theory & Practice, Quantitative Methods in Psychology

Honors Thesis: "The cost of having better alternatives"

Advisor: Amitai Shenhav

#### RESEARCH EXPERIENCE

## 2018 - Present Lab Manager

**Brown University** 

Dept. of Cognitive, Linguistic, & Psychological Sciences (CLPS)

Advisor: Michael J. Frank

Manage laboratory administration and conduct 2 research projects. The 1st project investigates the mechanisms of active information-seeking behavior to assess impulsivity under uncertainty in obsessive compulsive disorder (OCD), using a modified incentivized beads task, behavioral analysis, and computational modeling. The 2nd project looks at the influence of perceptual uncertainty on stimulus value in reward learning using a partially observable Markov decision process (POMDP) to describe behavior in a reinforcement learning task.

Duties include behavioral and electroencephalography (EEG) task design and programming, behavioral and EEG data collection and preprocessing, finances management, IRB protocol writing and maintenance, laboratory website and internal wiki creation and maintenance, assistance with grant renewals, management and training of undergraduate research assistants, and assistance with virtual machine/web server (for psiTurk/Amazon Mechanical Turk studies) troubleshooting.

## 2016 - 2018 Research Assistant

**Brown University** 

Dept. of Cognitive, Linguistic, & Psychological Sciences (CLPS)

Advisor: Amitai Shenhav

Assisted with behavioral and EEG data collection and stimulus development on a project involving choice anxiety. Secured university grant to lead a project exploring the subjective experience of social media distractors during an effortful cognitive control task. Designed, conducted, presented, and wrote up an honors thesis project leveraging EEG to find neural correlates for individual differences in task performance and task-switching behavior.

#### 2016 Research Intern

Center for Neurorestoration and Neurotechnology

Providence VA Medical Center

Advisor: Dr. Noah Philip

Administered transcranial magnetic stimulation (TMS) therapy on Veterans with comorbid major depressive disorder (MDD) and post-traumatic stress disorder (PTSD). Performed clinical interviews to assess treatment efficacy.

## **TEACHING EXPERIENCE**

## Spring 2018 Teaching Assistant

**Brown University** 

Dept. of Computer Science

Intro to Scientific Computing and Problem Solving

Professor: Daniel Potter

## Fall 2017 Teaching Assistant

**Brown University** 

Dept. of Cognitive, Linguistic, & Psychological Sciences (CLPS)

Intro to Programming Professor: Thomas Serre

## **AWARDS & HONORS**

**2018** B.S. Cognitive Neuroscience with Honors

2018 Sigma Xi

#### **POSTERS**

**Mahaphanit, W.**, Geana, A., & Frank, M.J. (2019). Perceptual Uncertainty Influences Stimulus Value Learning in Perceptual Categorization. In 4th Multidisciplinary Conference on Reinforcement Learning and Decision Making. Montreal, CA.

Provenza, P., Dastin-van Rijn, E., McLaughlin, N., Sheth, S., Viswanathan, A., Vogt, G., Ramakrishnan, R., McIngvale, E., Storch, E., **Mahaphanit, W.**, Nassar, M., Frank, M.J., Ertugrul, I., Jeni, L., Cohn, J., Borton, D., Goodman, W. (2019). Preliminary experience with developing adaptive Deep Brain Stimulation for Obsessive Compulsive Disorder. In 5th Annual BRAIN Investigator's Meeting. Washington, DC.

### **FELLOWSHIPS & SCHOLARSHIPS**

**Summer 2017** Karen T. Romer Undergrad Teaching & Research Award (\$3,500)

**Brown University** 

Spring 2017 Karen T. Romer Undergrad Teaching &Research Award (\$1,000)

**Brown University** 

2014 - 2016 Sorensen Family Chancellor's Scholarship

**Brown University** 

**2014** Maine Medical Center Junior Volunteer Scholarship (\$2,000)

**SKILL SET** 

**Programming** MATLAB

**Languages** Familiar with Python, R, JavaScript, bash

Software & PsychToolBox, jsPsych (w/ React), psiTurk, Adobe Photoshop & Libraries Illustrator. DB browser for SQLite

Familiar with TensorFlow (Keras wrapper), scikit-learn, GitHub,

PsychoPy, npm, cluster computing

Platforms Microsoft Windows, Mac, Linux (Ubuntu)

Familiar with Unix

**Misc.** French (limited proficiency), Thai (limited proficiency)

Lyra/Cerceau performer and instructor

# **LEADERSHIP & EXTRACURRIULARS**

2014 - Present	Lyra/Aerial Hoop Performer & Instructor Brown Aerial Arts & Acrobatics
2016 - 2018	Publicity Chair Brown Aerial Arts & Acrobatics
2016 - 2017	Social Chair Infinity! Art Gallery
2015 - 2016	Comic Artist & Illustrator Brown Daily Herald
2014 - 2016	Social Chair Quest Scholars @ Brown
2014 - 2015	Member Women in Science and Engineering (WiSE) @ Brown
2014 - 2015	Member New Scientist Program (STEM peer mentoring group)

# **TRAINEES**

2018 - 2019	Cleveland (Rob) Chambliss, Undergrad RA, Brown University
2018 - 2019	Caroline Hunt, Undergrad RA, Brown University
2018 - 2019	Juan Muneton Gallego, Undergrad RA, Brown University
2017 - 2018	Hattie Xu, Undergrad RA, Brown University

# **RESEARCH TRAINING**

2018 Carney Computational Modeling Workshop Brown University