Ata B. Karagoz, B.S.

Department of Psychological and Brain Sciences, Washington University in St. Louis
832-738-8196 | a.b.karagoz@wustl.edu

EDUCATION

Washington University in St. Louis, St. Louis, MO Sep. 2020 – Present
PhD in Psychological and Brain Sciences

The University of Texas at Austin, Austin, TX Aug. 2014 – May 2018
Bachelor of Science in Neuroscience

RESEARCH INTERESTS

My research interests include studying the formation of conceptual cognitive maps and hierarchical structures in the brain to accurately represent the relationships between items. I am also interested in event memory, reinforcement learning, naturalistic stimuli, and neuroimaging.

MANUSCRIPTS IN PREPARATION

Pederson, A.M.*, **Karagoz, A.B.*,** Dean, D., Dembny, K.E., Dodla, M., Duncan, L., Fahmy, R., Kuo, A., Haimes, D.B., Golding, N.L. (In Preparation). Role of Kv1 channels in regulating the excitability and firing patterns of neurons in the medial geniculate body.

Roome, H.E., Sherrill, K.R., Coughlin, C.A., **Karagoz, A.B.,** Preston, A.R. (In Preparation) The development of spatial navigation: Importance of cue integration.

Sherrill, K.R., Molitor, R.J., **Karagoz, A.B.,** Atyam, M., Mack, M.L., Preston, *A.*R. (In Preparation) Hippocampal and medial prefrontal cognitive maps formed through spatial navigation influence processing in non-spatial contexts.

** denotes equal first author*

CONFERENCE/POSTER PRESENTATIONS

Sherrill, K.*, Molitor, R., **Karagoz, A.,** Atyam, M., Mack, M., Preston, A. (2019) Hippocampal and medial prefrontal cognitive maps formed through spatial navigation influence processing in non-spatial contexts. Talk presented at the Context and Episodic Memory Symposium

Pederson, A.M.*, **Karagoz, A.B.*,** Dean, D., Dembny, K.E., Dodla, M., Duncan, L., Fahmy, R., Kuo, A., Haimes, D.B., Golding, N.L. (2017). Role of Kv1 channels in regulating the excitability and firing patterns of neurons in the medial geniculate body. Poster presented at the Society for Neuroscience Conference

* *denotes presenter*

AD-HOC REVIEWING

- Cerebral Cortex

Ata B. Karagoz, B.S.

Department of Psychological and Brain Sciences, Washington University in St. Louis
832-738-8196 | a.b.karagoz@wustl.edu

RESEARCH CONTRIBUTIONS

How does the brain form knowledge structures from naturalistic events? Developing an interactive narrative game to probe how people learn from naturalistic interactions and how they generalize the information to other scenarios.

How does the brain construct and manipulate representations of social networks? Using representational similarity to analyze neural coding of different characters in an open fMRI dataset where participants watched a socially dynamic movie.

How does reward and cognitive control bias memory specificity? Using a reward learning task to understand how people's exertion of cognitive control changes their memory for different aspects of their environment.

CERTIFICATIONS AND CREDENTIALS

The University of Texas Biomedical Imaging Center, Level 1 and 2 Siemens fMRI Operator

PROFESSIONAL EXPERIENCE

The Preston Lab, The University of Texas at Austin Jan. 2018 – Aug. 2020
Supervisor: Alison Preston, Ph.D.
Lab Manager

- Assisted in data collection and analysis for various memory integration and navigational projects.
- Scheduled and built a participant pool for behavioral and scanning projects.
- Managed IRB approval for lab studies for amendments and continuing reviews.
- Assisted in developing a streamlined process for data archival.
- Managed cash advances and lab administration.

RESEARCH EXPERIENCE

Complex Memory Lab, Washington University in St. Louis Aug. 2020 – Present
Supervisor: Zachariah Reagh, Ph.D.
Graduate Research Assistant

- Designing research and data collection
- Analyzing open fMRI datasets
- Project planning

The Preston Lab, The University of Texas at Austin Nov. 2015 – Jan. 2018
Supervisor: Alison Preston, Ph.D.
Undergraduate Research Assistant

- Assisted in fMRI scanning studies.
- Wrote analysis scripts in MATLAB for ongoing projects.
- Designed a study and developed presentation code in MATLAB.

Ata B. Karagoz, B.S.

Department of Psychological and Brain Sciences, Washington University in St. Louis
832-738-8196 | a.b.karagoz@wustl.edu

PROFESSIONAL EXPERIENCE

Peer Learning Assistant, The University of Texas at Austin — Aug. 2015 – Dec. 2015
Course: Neural Systems 1

- Led weekly discussion sessions for peers in class
- Attended weekly meetings with professor to target specific topics

Github Clinic, *Complex Memory Lab* — Sep. 2020

- Taught version control tools
- Taught best practices involving git

Github Clinic, *Preston Lab* — May 2019

- Taught version control tools
- Taught best practices involving git

Mentoring Undergraduate Research Assistants, — June 2018 – Aug. 2020
Preston Lab

- Connor McKee **(UT Austin)**
- Doru Gucer **(UT Austin)**
- Katherine Vasquez **(UT Austin)**

Psychology Outreach with Elementary Schoolers — Sep. 2020 – Present

- Zoom lectures involving introductory psychology topics
- Teaching students about perception using zoom relevant lessons

SKILLS

- Programming Languages: Python (fluent), MATLAB (fluent), R (beginner), bash scripting (intermediate), JavaScript
- Reproducible Science Workflows: Docker/Singularity (beginner), Jupyter Notebooks (intermediate), GitHub (intermediate)
- Management of Open Science Protocols and Data
- Deep Learning Framework: Tensorflow (beginner)
- High Performance Computing Cluster: Texas Advanced Computing Center, Washinton University Center for High Performance Computing
- Whole-cell patch clamping
- fMRI data preprocessing: ANTS, FEAT, FSL
- Microsoft Office Suite
- Languages: English (native), Turkish (native), German (beginner)

PROFESSIONAL MEMBERSHIPS AND AFFILIATIONS

- Society for Neuroscience, student member
- Cognitive Neuroscience Society, student member