

LYDIA T. NGUYEN**Email** lydia.nguyen9@gmail.com**Lab website** aancl.shs.illinois.edu • **Personal website** lydianguyen.com**EDUCATION****Ph.D., Neuroscience** **Jun 2020**

University of Illinois at Urbana-Champaign (UIUC), Champaign, IL

Dissertation title: *Behavioral and Neural Investigations of Value-Directed Strategic Processing*

Advisor: Raksha A. Mudar, Ph.D., CCC-SLP

B.S., Biological Sciences (Minor: Psychology), *summa cum laud* **May 2014**

Virginia Polytechnic Institute and State University (VA Tech), Blacksburg, VA

RESEARCH EXPERIENCE**Academic Research Affiliate** **Jun 2017-present***Carle Foundation Hospital, Urbana, IL*

- Recruit and screen patients with cognitive impairment at Carle Neuroscience Institute

Graduate Research Assistant **Aug 2014-present***Aging and Neurocognition Lab (AANCL), Neuroscience Program, UIUC*

- Recruit and screen participants for studies within the lab and through collaborations
- Administer cognitive assessments to cognitively normal and pathological populations
- Perform electroencephalography (EEG) data collection and preprocessing using Neuroscan software with cognitively normal and pathological populations
- Develop, code, and optimize scripts for EEG data analysis using MATLAB and EEGLAB toolbox to investigate event-related potentials and neural oscillations
- Design and develop novel paradigms to investigate various cognitive functions, such as cognitive control and value-directed strategic processing
- Prepare Institutional Review Board protocols for human subject research
- Train and mentor undergraduate and graduate students on research areas, laboratory protocols, and presentations and publications

Undergraduate Research Assistant **Aug 2013-May 2014***Department of Psychology, VA Tech*

- Assisted graduate student Neville Galloway-Williams with her dissertation project entitled “Facilitating Self-as-Context: A Treatment Component Study”
- Arranged video camera, recording equipment, and study room for each participant
- Reviewed informed consent and administered initial questionnaires with each participant
- Entered and verified data for each participant

Undergraduate Intern **Jul 2013-Apr 2014***Translational Decision Neuroscience Lab, Virginia Tech Carilion Research Institute, Roanoke, VA*

- Recruited subjects for studies from local colleges, universities, and businesses
- Ran economic decision-making study, which included setting up an online questionnaire database and subject computers, providing instructions, overseeing subjects, and payment
- Analyzed data using MATLAB

Undergraduate Research Assistant**Jan 2013-May 2014***Psychological Services Center (PSC), Blacksburg, VA*

- Analyzed data for new standardized assessment research (STAR) protocol using SPSS Statistics, including questionnaires and psychological measures from PSC clients
- Implemented new clinician procedures for the STAR project

Undergraduate Research Assistant**Aug 2012-May 2013***Department of Fish and Wildlife Conservation, VA Tech*

- Assembled large datasets, including photographs, from camera traps
- Identified individual jaguars in photographs based on spotting patterns
- Compiled jaguar data in spreadsheets, including date, time, and location of each photograph, and representative photographs of each side of the jaguar (for unique spotting patterns)
- Compared multi-site data to analyze jaguar movement through multiple territories

TEACHING EXPERIENCE**Graduate Teaching Assistant****Spring 19***Department of Speech and Hearing Science, UIUC*

Course: Communication & Aging (SHS 271)

- Class size of approximately 80 undergraduate students
- Helped prepare assignments and exams; Graded course assignments and proctored exams; Held weekly office hours

Graduate Teaching Assistant**Spring 18***Department of Speech and Hearing Science, UIUC*

Course: Introduction to Human Communication Systems & Disorders (SHS 170)

- Class size of approximately 120 undergraduate students
- Helped prepare lectures, assignments, and exams; Graded course assignments and proctored exams; Held weekly office hours

Graduate Teaching Assistant [Primary instructor]**Fall 17***Department of Psychology, UIUC*

Course: Introduction to Psychology (PSYC 100)

- Class size of approximately 50 undergraduate students
- Developed and delivered lectures, group activities, and assignments; Graded course assignments and proctored exams; Participated in weekly TA meetings; Held weekly office hours

Graduate Teaching Assistant [Primary instructor]**Spring 17, 16; Fall 16***The School of Molecular and Cellular Biology, UIUC*

Course: Experimental Techniques in Cellular Biology (MCB 253)

- Class sizes between 14-24 undergraduate students
- Developed lectures; Led discussion and laboratory class sections; Graded course assignments and proctored exams; Participated in weekly TA meetings; Held weekly office hours

PUBLICATIONSPublished papers (* indicates peer-reviewed publications)

1. *Nie, Q., **Nguyen, L.T.**, Myers, D., Gibson, A., Kerssens, C., Mudar, R.A., & Rogers, W.A. (in press). Design Guidance for Video Chat System to Support Social Engagement for Older Adults With and Without Mild Cognitive Impairment. *Gerontechnology*.

2. ***Nguyen, L.T.**, Marini, F., Shende, S.A., Llano, D.A., & Mudar, R.A. (2020). Investigating EEG theta and alpha oscillations as measures of value-directed strategic processing in cognitively normal younger and older adults. *Behavioural Brain Research*, 391. doi: 10.1016/j.bbr.2020.112702
3. *Palac, D., Bullard, T., Cohen, J.D., **Nguyen, L.T.**, Mudar, R.A., & Mullen, S. (2019). Effects of Traditional vs. iPad-enhanced Aerobic Exercise on Wayfinding Efficacy and Spatial Cognition: A Pilot Randomized Controlled Trial. *International Journal of Environmental Research and Public Health*, 16(18), 3495. doi: 10.3390/ijerph16183495
4. ***Nguyen, L.T.**, Marini, F., Zacharczuk, L., Llano, D.A., & Mudar, R.A. (2019). Theta and Alpha Band Oscillations During Value-Directed Strategic Processing. *Behavioural Brain Research*, 367, 210-214. doi: 10.1016/j.bbr.2019.03.052
5. *Mudar, R.A., **Nguyen, L.T.**, Eroh, J., Chiang, H-S., Rackley, A., & Chapman, S.B. (2019). Event-related Neural Oscillation Changes Following Reasoning Training in Individuals with Mild Cognitive Impairment. *Brain Research*, 1704, 229-240. doi: 10.1016/j.brainres.2018.10.017
6. Swords, G.M., **Nguyen, L.T.**, Mudar, R.A., & Llano, D.A. (2018). Incorporating Audiological Measurements into Alzheimer's Diagnosis. *Hearing Journal*, 71(6), 6. doi:10.1097/01.HJ.0000538926.57926.1c
7. *Swords, G.M., **Nguyen, L.T.**, Mudar, R.A., & Llano, D.A. (2018). Auditory System Dysfunction in Alzheimer Disease and its Prodromal States: A Review. *Ageing Research Reviews*, 44, 49-59. doi: 10.1016/j.arr.2018.04.001
8. ***Nguyen, L.T.**, Mudar, R.A., Chiang, H.S., Schneider, J.M., Maguire, M.J., Kraut, M.A., & Hart Jr., J. (2017). Theta and Alpha Alterations in Amnesic Mild Cognitive Impairment in Semantic Go/NoGo Tasks. *Frontiers in Aging Neuroscience*, 9, 160. doi: 10.3389/fnagi.2017.00160
9. *Mudar, R.A., Chiang, H.S., Eroh, J., **Nguyen, L.T.**, Maguire, M.J., Spence, J.S., Kung, F., Kraut, M.A., & Hart Jr., J. (2016). The Effects of Amnesic Mild Cognitive Impairment on Go/NoGo Semantic Categorization Task Performance and Event-Related Potentials. *Journal of Alzheimer's Disease*, 50, 577-590. doi: 10.3233/JAD-150586

Published abstracts

1. Rogers, W.A., Nie, Q., **Nguyen, L.T.**, Mudar, R.A., Myers, D., Gibson, A., & Kerssens, C. (2019). Social Engagement Through Video Chat For Older Individuals With And Without Cognitive Impairment. *Innovation in Aging*, 3(suppl_1), S15.
2. **Nguyen, L.T.**, Nie, Q., Lydon, E., Myers, D., Gibson, A., Kerssens, C., Mudar, R.A., & Rogers, W.A. (2019). Exploring Video Chat For Social Engagement In Older Adults With And Without Cognitive Impairment. *Innovation in Aging*, 3(suppl_3), S932.
3. **Nguyen, L.T.**, Nie, Q., Myers, D., Gibson, A., Kerssens, C., Mudar, R.A., & Rogers, W.A. (2018). Social Engagement Through Video Chat for Older Individuals With and Without Cognitive Impairment. *Innovation in Aging*, 2(suppl_1), 998.
4. **Nguyen, L.T.**, Shende, S.A., Rackley, A., Chapman, S.B. & Mudar, R.A. (2018). Strategy-Based Cognitive Training Effects on Event-Related Neural Oscillations in Amnesic Mild Cognitive Impairment. *Alzheimer's & Dementia: The Journal of the Alzheimer's Association*, 14(7), 1067.
5. Shende, S.A., **Nguyen, L.T.**, Burz, S., Rackley, A., Chapman, S.B., & Mudar, R.A. (2018). Relationship Between Use of Inherent Memory Strategies and Memory Performance in Amnesic Mild Cognitive Impairment. *Alzheimer's & Dementia: The Journal of the Alzheimer's Association*, 14(7), 1198-1199.

POSTERS & PRESENTATIONS

Posters

1. Inskeep, C., **Nguyen, L.**, & Lydon, E. *Video technology-based social engagement intervention for older adults with and without mild cognitive impairment: A feasibility study*. Poster presented by CI at the UIUC 2020 Virtual Undergraduate Research Symposium, Champaign, IL, May 2020.

2. Philip, J., Lydon, E., & **Nguyen, L.** *It's Like Face to Face Talking: Thematic Analysis of the Feasibility of a Video Chat Social Engagement Intervention for Older Adults With and Without MCI.* Poster presented by JP at the UIUC 2020 Virtual Undergraduate Research Symposium, Champaign, IL, May 2020. **JP won Outstanding Poster Presentation in Health & Wellness for this poster presentation
3. **Nguyen, L.T.**, Nie, Q., Lydon, E., Myers, D., Gibson, A., Kerssens, C., Mudar, R.A., & Rogers, W.A. *Exploring Video Chat for Social Engagement in Older Adults With and Without Cognitive Impairment.* Poster presented by QN at The Gerontological Society of America Annual Scientific Meeting, Austin, TX, Nov 2019.
4. **Nguyen, L.T.**, Shende, S.A., Marini, F., Llano, D.A., & Mudar, R.A. *Theta, alpha, and beta band oscillations related to value-directed strategic processing in cognitively normal younger and older adults.* Poster presented at the Society for Neuroscience 49th annual meeting, Chicago, IL, Oct 2019.
5. Lydon, E.A., **Nguyen, L.T.**, & Mudar, R.A. *Strategy-Based Cognitive Training Effects on Event-Related Spectral Perturbations in Early versus Late Mild Cognitive Impairment.* Poster presented by EL at Eleanor M. Saffran Cognitive Neuroscience Conference, Philadelphia, PA, Sept 2019.
6. Nie, Q., **Nguyen, L.T.**, Myers, D., Gibson, A., Kerssens, C., Mudar, R.A., & Rogers, W.A. *Evaluating a technology support system for social engagement for Older Adults With and Without Cognitive Impairment.* Poster presented by QN at the 2019 International Symposium on Human Factors and Ergonomics in Health Care, Chicago, IL, Mar 2019.
7. **Nguyen, L.T.**, Nie, Q., Myers, D., Gibson, A., Kerssens, C., Mudar, R.A., & Rogers, W.A. *Social Engagement Through Video Chat for Older Individuals With and Without Cognitive Impairment.* Poster presented by RM & WR at The Gerontological Society of America Annual Scientific Meeting, Boston, MA, Nov 2018.
8. **Nguyen, L.T.**, Shende, S.A., Rackley, A., Chapman, S.B., & Mudar, R.A. *Strategy-Based Cognitive Training Effects on Event-Related Neural Oscillations in Amnesic Mild Cognitive Impairment.* Poster presented at the Alzheimer's Association International Conference, Chicago, IL, July 2018.
9. Shende, S.A., **Nguyen, L.T.**, Burz, S., Rackley, A., Chapman, S.B., & Mudar, R.A. *Relationship Between Use of Inherent Memory Strategies and Memory Performance in Amnesic Mild Cognitive Impairment.* Poster presented by S.S. at the Alzheimer's Association International Conference, Chicago, IL, July 2018.
10. Rajan, J., Paoletta, A., & **Nguyen, L.T.** *Strategic Attention in Individuals with Amnesic Mild Cognitive Impairment.* Poster presented by J.R. & A.P. at the UIUC Undergraduate Research Symposium, Champaign, IL, Apr 2018.
11. **Nguyen, L.T.**, Shende, S.A., Tai, Y., Husain, F., & Mudar, R.A. *Cognitive and Neural Alterations in Age-Associated Hearing Loss.* Poster presented at the 12th Annual Eleanor M. Saffran Conference on Cognitive Neuroscience and Rehabilitation of Communication Disorders, Philadelphia, PA, Sept 2017.
12. Diamond, M., Burz, S., & **Nguyen, L.T.** *Electrophysiological Markers of Cognitive Control in Picture Word Interference Task.* Poster presented by M.D. & S.B. at the UIUC Undergraduate Research Symposium, Champaign, IL, Apr 2017.
13. Kung, F. & **Nguyen, L.T.** *Connected Language in Alzheimer's Disease.* Poster presented by F.K. at the UIUC Undergraduate Research Symposium, Champaign, IL, Apr 2017.
14. **Nguyen, L.T.**, Shende, S.A., & Mudar, R.A. *Characterizing Early and Late Mild Cognitive Impairment Using EEG Alpha Power.* Poster presented at the 2017 Chittenden Symposium, Champaign, IL, Mar 2017.
15. **Nguyen, L.T.**, Shende, S.A., & Mudar, R.A. *Characterizing Early and Late Mild Cognitive Impairment Using EEG Alpha Power.* Poster presented at the Interdisciplinary Health Sciences Initiative 2nd Annual Clinical and Translational Neuroscience Workshop, Urbana, IL, Feb 2017.

16. **Nguyen, L.T.** & Mudar, R.A. *Alpha Power Changes in Amnesic Mild Cognitive Impairment in Go/NoGo Tasks Involving Semantic Categorization*. Poster presented at The Gerontological Society of America 69th Annual Scientific Meeting, New Orleans, LA, Nov 2016.
17. **Nguyen, L.T.** & Mudar, R.A. *Alpha Power Changes in Amnesic Mild Cognitive Impairment in Go/NoGo Tasks Involving Semantic Categorization*. Poster presented at Synapse: A Collaborative Neuroscience Conference, Champaign, IL, Aug 2016.
18. **Nguyen, L.T.**, Kung, F., & Mudar, R.A. *Event-related Potentials and Alpha Power Changes in Amnesic Mild Cognitive Impairment in Go/NoGo Tasks Involving Semantic Categorization*. Poster presented at the Karolinska Institute at Illinois summit, Champaign, IL, June 2016.
19. **Nguyen, L.T.**, Kung, F., & Mudar, R.A. *Event-related Potentials and Alpha Power Changes in Amnesic Mild Cognitive Impairment in Go/NoGo Tasks Involving Semantic Categorization*. Poster presented at the Chittenden Symposium, Champaign, IL, Apr 2016.
20. **Nguyen, L.T.**, Chiang, H.S., Eroh, J., Maguire, M.J., Kraut, M.A., Hart Jr., J., & Mudar, R.A. *Alpha Power Changes in Amnesic Mild Cognitive Impairment in Go/NoGo Tasks Involving Semantic Categorization*. Poster presented at the Cognitive Neuroscience Society 23rd Annual Meeting, New York City, NY, Apr 2016.
21. **Nguyen, L.T.**, Waldron, J.C., Galloway-Williams, N., Fraire, M.G., & Cooper, L.D. *Improvements in OQ at a Community Clinic Differ Based on Depression Severity*. Poster presented by J.C.W. at the Association for Psychological Science 26th Annual Convention, San Francisco, CA, May 2014.
22. **Nguyen, L.T.**, Galloway-Williams, N., Waldron, J.C., & Cooper, L.D. *Broad Autism Phenotype Status and Categories of Stress and Impairment*. Poster presented at the Maryland Association for Behavior Analysis 16th Annual Meeting, Baltimore, MD, Nov 2013.

Oral presentations

1. Nie, Q., **Nguyen, L.T.**, Lydon, E., Myers, D., Gibson, A., Kerssens, C., Mudar, R.A., & Rogers, W.A. *Designing Video Chat for Social Engagement in Older Adults With and Without Mild Cognitive Impairment*. Presentation to be given by Q.N. at the International Society for Gerontechnology 12th World Conference of Gerontechnology, Trondheim, Norway, May 2020.
2. Rogers, W.A., Nie, Q., **Nguyen, L.T.**, Mudar, R.A., Myers, D., Gibson, A., & Kerssens, C. *Older Adults' Social Relationships and Well-being in a Digital World*. Presentation given by W.A.R. at The Gerontological Society of America's 71st Annual Scientific Meeting, Austin, TX, Nov 2019.
3. **Nguyen, L.T.** & Mudar, R.A. *Effects of Strategy-Based Cognitive Training in Mild Cognitive Impairment*. Presentation given at the Illinois Speech-Language-Hearing Association 58th Annual Convention, Rosemont, IL, Feb 2018.
4. **Nguyen, L.T.** *Event-Related Neural Oscillations in Amnesic Mild Cognitive Impairment*. Presentation given at the UIUC Department of Speech and Hearing Science proseminar, Champaign, IL, Dec 2017.
5. Husain, F., **Nguyen, L.T.**, Tai, Y., Shende, S.A., & Mudar, R.A. *Impact of Hearing Loss on Brain and Cognition in Older Adults*. Presentation given by F.H. at the 4th International Conference on Cognitive Hearing Science for Communication, Linköping, Sweden, June 2017.

AWARDS & RECOGNITION

Paul D. Doolen Graduate Scholarship for the Study of Aging Oct 2019

- Awarded based on novel and/or high impact research in the field of aging, peer-reviewed publications, academic qualifications, and strong recommendations

Graduate College Dissertation Completion Fellowship, UIUC Aug 2019-Aug 2020

- Awarded a one-year stipend to complete doctoral degree based on the significance of the dissertation research and academic productivity and progress

List of Teachers Ranked as Excellent By Their Students (SHS 271), UIUC **Spring 19**

- Rated as outstanding (top 10% of all TAs)

2019 NSP Forebrain Award, UIUC **Apr 2019**

- Awarded by the Neuroscience Program for excellence in outreach and service

List of Teachers Ranked as Excellent By Their Students (SHS 170), UIUC **Spring 18**

- Rated as outstanding (top 10% of all TAs)

Graduate Teacher Certificate, UIUC **Feb 2018**

- Requirements included teaching at least two semesters, observation of teaching by faculty, collection of student feedback (informal and formal), and participation in teaching development programs (teaching orientation, teaching development workshops, classes, and seminars)

List of Teachers Ranked as Excellent By Their Students (PSYC 100), UIUC **Fall 17****Saffran Student Scholar Travel Award, Temple University, Philadelphia, PA** **Aug 2017**

- Support for travel and accommodations to attend the 12th Annual Eleanor M. Saffran Conference on Cognitive Neuroscience and Rehabilitation of Communication Disorders

List of Teachers Ranked as Excellent By Their Students (MCB 253), UIUC **Spring 17, 16; Fall 16**

- Rated as outstanding (top 10% of all TAs)

Neuroscience Program Fellowship, UIUC **Aug 2014-May 2015****COMPUTER SKILLS**

Microsoft Office	MATLAB	SAS	EndNote
Neuroscan	EEGLAB toolbox	SPSS Statistics	

ADDITIONAL SKILLS

Magnetic Resonance Imaging (MRI) safety trained	Training completed Dec 2017
Clinical Dementia Rating certified rater	Training completed Sept 2017
Basic Life Support (BLAS) certified provider	Training completed Aug 2017

VOLUNTEER EXPERIENCE**2020 Virtual Undergraduate Research Symposium** **May 2020**

- Served as a judge, evaluating undergraduate virtual poster presentations

Alzheimer's Association Walk to End Alzheimer's, Champaign, IL **Fall 19, 18, 17, 16**

- Volunteered at the Promise Garden and as a route guide

Brain Awareness Day, Champaign, IL **Apr 2019, 2018, 2017, 2016, 2015**

- Community outreach program to educate the community about research on the brain
- Served as lead student chair on the executive committee for two consecutive years (2015-2017)

Champaign-Urbana Youth Hockey Association, Champaign, IL **Sept 2016-present**

- Serving as webmaster

Neuroscience Program Open House, Champaign, IL **Spring 20, 19, 18, 17, 16, 15**

- Hosted by the UIUC Neuroscience Program for prospective graduate students

PROFESSIONAL AFFILIATIONS

Alzheimer's Association International Society to Advance Alzheimer's Research and Treatment (ISTAART) • member

Gerontological Society of America • member