

MATTHEW DOUGHERTY

Philadelphia, PA | doughem@sas.upenn.edu | (914) 582-9761

EDUCATION

University of Pennsylvania

College of Arts & Sciences; May 2020

Bachelor of Arts in Cognitive Science; Cognitive Neuroscience Concentration

GPA: 3.79 | **Within-Major GPA:** 3.94 | **ACT:** 34 | Magna Cum Laude | Dean's List 2017-2019

Notable Coursework: Cognitive Neuroscience, Neurodegenerative Diseases, Cognitive Development, Neuroendocrinology, Neuroscience & Society, Visual Neuroscience, Introduction to Computer Programming, Multivariable Calculus, Introductory Statistics

University of Pennsylvania

Non-Degree Post Baccalaureate Studies; December 2020

Coursework: Introduction to Python for Data Science

RESEARCH EXPERIENCE

Computational Memory Lab, University of Pennsylvania Department of Psychology

Research Specialist, Clinical

March 2022 – Present

- Developed and analyzed data from online multi-experiment study on forward and backward serial recall, deployed via Amazon Mechanical Turk
- Analyzed neural biomarkers of encoding and retrieval from scalp EEG experiments studying the effect of spatiotemporal context on memory
- Presented findings from aforementioned projects at conferences, internal lab meetings, and as a visiting presenter at meetings of collaborating labs
- Managed communication with PIs and research staff at seven hospitals for collaborative multi-site intracranial EEG project aimed at elucidating neural correlates of memory
- Tested patients at Jefferson University Hospital with intracranial electrodes on various memory paradigms
- Maintained and promoted collaboration with intracranial EEG researchers on projects focused on understanding spatiotemporal aspects of memory at the single-neuron level at Columbia University
- Established collaboration with intracranial EEG researchers at UCLA to further understand the presence and function of human space & time cells

Research Specialist, Scalp EEG

October 2020 – March 2022

- Collected & annotated data on two multi-session scalp EEG studies investigating neural correlates of correct memories under different encoding conditions
- Compiled & edited figures from over 80 contributing authors on the upcoming second edition of the [Oxford Handbook of Human Memory](#)
- Planned, scheduled, and organized the Context and Episodic Memory Symposium 2021 and 2022
- Managed a team of five undergraduate researchers assisting in data collection, annotation, and quality checks
- Trained extensively in Python & Linux Command Line via coursework, online resources such as LinkedIn Learning, and lab-developed training modules

Chronobiology Isolation Laboratory, Perelman School of Medicine Psychiatry

Research Assistant

August 2018 – May 2020

- Investigated the effects of stress & sleep deprivation on aspects of the human mental state in participants with & without a history of mental illness
- Administered a variety of cognitive assessments during week-long studies
- Communicated one on one with subjects about their mental and physical states
- Reported data on subjects' concerns, body language, and tone of voice to research staff, PhD students, and postdoctoral fellows; ensured subjects received resources and care necessary to comfortably continue studies

PUBLICATIONS

Dougherty, M. R., Halpern, D., and Kahana, M. J. Forward and Backward Recall. Manuscript under 2nd round review at the *Journal of Experimental Psychology: Learning, Memory and Cognition*. [10.31234/osf.io/xaz9d](https://doi.org/10.31234/osf.io/xaz9d)

Dougherty, M. R., Chang, W., Rudoler, J., Katerman, B. S., Halpern, D., Bruska, J. P., Diamond, N., and Kahana, M. J. Searching memory in time and space. *BioArXiv*. <https://doi.org/10.1101/2022.11.30.518606>

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PRESENTATIONS

Dougherty, M. R., Chang, W., Katerman, B. S., Halpern, D., Diamond, N., and Kahana, M. J. Searching memory in time and space. Learning and Memory, 2023 (Accepted for Lightning Talk).

Dougherty, M. R., Halpern, D., and Kahana, M. J. Forward and Backward Recall. CogSci, 2022 (Poster).

Dougherty, M. R. Searching memory in time and space. Guest Presentation at Dr. Josh Jacobs' Electrophysiology, Memory, and Navigation Laboratory, Columbia University, 2022.

Dougherty, M. R. Forward and Backward Recall. Guest Presentation at Dr. Nelson Cowan's Working-Memory Laboratory, University of Missouri, 2022.

Dougherty, M. R., Chang, W., Katerman, B. S., Halpern, D., Diamond, N., and Kahana, M. J. Searching memory in time and space. Context and Episodic Memory Symposium, 2022 (Poster).

Dougherty, M. R., Halpern, D., and Kahana, M. J. Forward and Backward Recall. Context and Episodic Memory Symposium, 2022 (Poster).

Dougherty, M. R., Chang, W., Katerman, B. S., Halpern, D., Diamond, N., and Kahana, M. J. Searching memory in time and space. Cognitive Neuroscience Society, 2022 (Poster).

ADDITIONAL WORK & EXTRACURRICULAR EXPERIENCE

DaVita, Inc.

Business Analyst Intern

June 2019 – August 2019

- Designed automatically updating key performance indicator dashboards for DaVita's National Home Dialysis Team in Tableau. Encouraged user action by displaying data-driven insights and individualized actionable recommendations in dashboards
- Conducted surveys with approximately 15 physicians, nurses, and regional directors to gain comprehensive understanding of the indicators of potential adverse health events in patients
- Generated formulas to track the risk of adverse health events for over 25,000 patients

Social Planning and Events Committee at the University of Pennsylvania

Director of External Affairs, Speaking Division

April 2018 – May 2020

- Planned celebrity keynote speaking events featuring guests such as Laverne Cox, Antoni Porowski, and Terry Crews
- Negotiated, drafted and revised contracts, and managed communication with talent and talent agents
- Stayed abreast of culturally relevant topics and issues to inform event discussions
- Managed a yearly budget of \$180,000 and delegated expenses for honorarium, travel, venue booking, security, and marketing

WQHSRadio.org

Financial Director and Show Host

September 2017 – May 2020

- Prepared and managed \$25,000 annual budget for the university's student-run radio station
- Secured funding approvals via presentations to university oversight staff
- Marketed, curated playlists, and managed program content for weekly show "Good Music"
- Recruited and conducted on-air interviews with local performers

TECHNICAL SKILLS

Extensive Experience: Python (Pandas & Numpy libraries), Linux Command Line, Statistical Analysis (t-tests, ANOVA)

Moderate Experience: Microsoft Excel

Elementary Experience: Statistical Analysis (Repeated Measures ANOVA, Linear Mixed Effects Models), Javascript, Dr. Java, mySQL, R

INTERESTS

Modeling (NYFW 2022 FW, NYFW 2023 SS), Irish Dancing (formerly 3rd in region, 3rd in nation, 12th in world), Running, Sewing, LGBTQ+ Culture & Rights