

# Nikolas McNeal

nikolasmcneal.github.io

nikolas@gatech.edu

## EDUCATION

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**Georgia Institute of Technology**  
Ph.D., Machine Learning

Atlanta, Georgia  
2023 - Present

**Ohio State University**  
B.A., Computer Science

Columbus, Ohio  
2019 - 2023

## HONORS AND AWARDS

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**OSU CSE Undergraduate Research Award (2023)**, departmental computer science research award

**OSU Undergraduate Research Scholarship (2021)**, university undergraduate research award

**OSU Decision Sciences Collaborative Scholarship (2021)**, university computational psychology research award

**Stamps Scholarship (2019)**, full cost-of-attendance merit award given to five incoming freshmen

**Ohio State University Eminence Fellowship (2019)**, full cost-of-attendance merit award given to 25 incoming freshmen

## RESEARCH EXPERIENCE

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**The Ohio State University, Department of Computer Science**  
Research Assistant, *advised by Professors Huan Sun and Yu Su*

2021 - 2023  
Columbus, Ohio

**Carnegie Mellon University, Department of Computer Science**  
Research Assistant, *advised by Professor Tai Sing Lee*

2021 - 2023  
Remote

**Northwestern University, Department of Music**  
Research Assistant, *advised by Professor Daniel Shanahan*

2021 - 2023  
Remote

**The Ohio State University, Department of Psychology**  
Research Intern, *advised by Professor Ian Krajbich*

2019 - 2023  
Columbus, Ohio

## TEACHING

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**Differential Equations**, Teaching Assistant  
Math 2552

*Autumn 2023*  
Georgia Institute of Technology

**Quantitative Neuroscience**, Teaching Assistant  
Math 4350

*Spring 2023*  
The Ohio State University

## PREPRINTS

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[1] **McNeal, N.**, Huang, J, Umoren, A., Dai, S., Dannenberg, R., Randall, R., Lee, T.S. (2022) *Relating Musicality and Preferability to Prediction in a Predictive Coding Model*. Submitted.

## PUBLICATIONS

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[1] Gutierrez, B.J., **McNeal, N.**, Washington, C., Chen, Y., Li, L., Sun, H., Su, Y. (2022). *Thinking About Using GPT-3 for Biomedical Information IE? Think Again*. Findings of the 2022 Conference on Empirical Methods in Natural Language Processing (**EMNLP**) 2022. Presented in: Abu Dhabi, United Arab Emirates

## CONFERENCE PRESENTATIONS

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- [1] Shanahan, D., Kang, J., **McNeal, N.** (2023, August 24-28). *Understanding the Role of Schematic Knowledge in the Preference for Harmonic Asymmetry with Iterative Learning*. 17th International Conference on Music Perception and Cognition (**ICMPC**), Tokyo, Japan. Accepted. **[Oral]**
- [2] **McNeal, N.**, Shanahan, D. Kang, J., Hay, N. (2022, August 4-7). *Iterative Learning Suggests a Preference for Harmonic Asymmetry*. Society for Music Perception and Cognition (**SMPC**). Portland, Oregon. **[Oral]**
- [3] **McNeal, N.**, Shevlin, B., Krajbich, I. (2022, July 27-30) *What causes enhanced processing of high-value items?* 44th Annual Meeting of the Cognitive Science Society (**CogSci**). 2022 July; Toronto, Canada.
- [4] **McNeal, N.**, Umoren, A., Huang, J., Lee, T.S. (2021, August 6). *Unsupervised Musicality Prediction of Pitch Sequences*. CMU-Pitt Center of Neural Basis of Cognition's Undergraduate Program in Neural Computation. Pittsburgh, Pennsylvania
- [5] Umoren, A., **McNeal, N.**, Lee, T.S. (2021, August 6). *Probing PredNet's Internal Representations using Feature Visualization*. CMU-Pitt Center of Neural Basis of Cognition's Undergraduate Program in Neural Computation. Pittsburgh, Pennsylvania.