# Will Decker

will.decker@gatech.edu · w-decker.github.io

#### Research interests

General: Concepts, language, intelligence, neuroimaging, LLMs

Specific: Organization of language and complex meaning in biological and artificial systems

Developmental approaches to cognitive and computational neuroscience

#### Education

2024 – Present Georgia Institute of Technology – Atlanta, Georgia, USA

PhD, Psychology

Advisor: Prof. Anna (Anya) Ivanova

2020 – 2024 Louisiana State University – Baton Rouge, Louisiana, USA

B.S., Psychology

Advisors: Prof. Christopher R. Cox and Prof. Julie M. Schneider

#### Honors and awards

2024 Distinguished Undergraduate Researcher Medalist

Louisiana State University

2024 Paul C. Young Award for Outstanding Undergraduate in Psychology

Louisiana State University

Amount: \$100

2024 - 2028

President's Fellowship

Georgia Institute of Technology

Amount: \$22,000

2023 LSU ASPIRE Travel Award

Louisiana State University

Amount: \$500

2023 Tiger Athletic Foundation (TAF) Undergraduate Honors Thesis Scholarship

Louisiana State University

Amount: \$1,000

- 2023 LSU Discover Travel Award

  Louisiana State University

  Amount: \$1,500
- 2022 LSU Discover Distinguished Undergraduate Researcher Candidate Award Louisiana State University

### **Publications**

- In prep **Decker, W.**, Schneider, J. M. (registered report). When reducing noise in developmental EEG data, is EEG best left alone? *Developmental Cognitive Neuroscience*.
  - Fan, T., **Decker, W.**, Momsen, J., Haebig, E., Schneider, J. M. 2024. The facilitatory role of rhyme during implicit and explicit word learning. *PsyArXiv*.
  - Fan, T., **Decker, W.**, Schneider, J. M. 2024. The domain-general neural basis of auditory statistical learning in children. *Neurobiology of Language*.

#### **Selected Conference Abstracts**

- Decker, W. Schneider, J.M., Cox, C. 2024. Neural processes of statistical learning. Poster presented at the annual Louisiana State University Discover Day Research Symposium. Baton Rouge, Louisiana, USA.
- Decker, W., Schneider J. M., Cox, C. 2023. The architecture of auditory statistical learning in the brain: a dynamical functional connectivity study. Poster presented at the Society for the Neurobiology of Language's annual meeting. Marseille, France.
  - **Decker, W.**, Schneider, J. M. 2023. Is EEG really better left alone for developmental datasets. Poster presented at the annual meeting of the Society for Psychophysiological Research (SPR). New Orleans, Louisiana, USA
  - **Decker, W.**, Fan, T., Haebig, E., Schneider, J. M. 2023. Neural mechanisms of novel word learning through rhyme in adults. Poster presented at the Cognitive Neuroscience Society's Annual Meeting. San Francisco, California, USA.

Decker, W., Haebig, E., Schneider, J. M. 2022. Anxiety and Word learning in college students. Poster presented at the annual University of Louisiana at Lafayette Undergraduate Research Conference. Lafayette, Louisiana, USA. DOI:https://osf.io/GNM8J

**Decker, W.**, Schneider, J.M. 2022. Choosing an EEG system: evaluating the pros and cons and quality of data among two different capping approaches. Poster presented at the annual Louisiana State University Discover Day Research Symposium. Baton Rouge, Louisiana, USA. DOI:https://osf.io/6W4JF

#### Invited talks

2023 Using neuroimaging to examine statistical learning Student Linguistics Meet-up, Louisiana State University

> A pipeline for developmental EEG data Joint meeting of the Department of Psychology and Department of Communication Sciences and Disorders, Louisiana State University

## Funding

A universal preprocessing-pipeline for event-related potentials (ERPs) in developmental electroencephalography (EEG) research.

Agency: LSU Discover Undergraduate Research Program, Louisiana State University Amount: \$3,000

## Membership and service

2023 - 2024 **Society for Psychophysiological Research** 

2023 - 2024 Society for the Neurobiology of Language

Student member

Student member

2022 - 2023 Cognitive Neuroscience Society

Undergraduate student member

## Technical skills

Programming Python, R, MATLAB, Bash/Shell

 $Software \qquad Git/GitHub, \LaTeX/ New Year Figure 1. The property of the property of$