# Will Decker

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#### 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

#### **Publications**

Under review Decker, W., Schneider, J. M. (registered report). When reducing noise in develop-

mental EEG data, is EEG best left alone? Developmental Cognitive Neuroscience.

2025 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 audi-

tory 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

#### Talks

- 2025 Do words and images have shared conceptual representations? School of Psychology, Georgia Institute of Technology
- 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**

mental electroencephalography (EEG) research. Agency: LSU Discover Undergraduate Research Program, Louisiana State University Amount: \$3,000 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 **Teaching** 2025 Teaching Assistant, Human Language Processing Instructor: Prof. Anna (Anya) Ivanova

Teaching Assistant, Human Language Processing

Instructor: Prof. Anna (Anya) Ivanova

A universal preprocessing-pipeline for event-related potentials (ERPs) in develop-

2023

2024

## Memberships

2023 - 2024 Society for Psychophysiological Research

Student member

2023 - 2024 Society for the Neurobiology of Language

Student member

2022 - 2023 Cognitive Neuroscience Society

 $Under graduate\ student\ member$ 

Service

2025 - Present Atlanta Swim Association (ASA) Referee (Seasonal)

Technical skills

Programming Python, R, MATLAB, Bash/Shell

Software Git/GitHub, LaTeX/Overleaf