# Will Decker

# Curriculum Vitae March 2024

#### Contact

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#### Education

2024 – Georgia Institute of Technology

Ph.D., Psychology

Advisor: Prof. Anna (Anya) Ivanova

2020 – 2024 Louisiana State University

B.S., Psychology; Minor, German

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

### **Research Interests**

General: Learning, language, perception, neuroimaging, neural networks

Specific: Hippocampal contributions to learning, language and semantics

Computational models of learning, language and semantics

Implications of language on broader cognition

Developmental approaches to cognitive and computational neuroscience

## **Publications**

In prep **Decker, W.** Schneider, J.M., Cox, C. (in prep manuscript). The spatiotemporal architecture

of auditory statistical learning.

**Decker, W.**, Schneider, J. M. (in prep registered report). When Reducing Noise in Developmental EEG Data, Is EEG Best Left Alone? *Developmental Cognitive Neuroscience*.

Under review Fan, T., **Decker, W.**, Schneider, J. M. (under review). The domain-general neural basis of

auditory statistical learning in children. Neurobiology of Language.

#### **Conference Presentations**

\*equal contribution

2024 **Decker, W.** Schneider, J.M., Cox, C. (April 2024). Neural processes of statistical learning.

Poster presented at the annual Louisiana State University Discover Day Research Symposium.

Baton Rouge, Louisiana, USA.

Fan, T., **Decker, W.**, Momsen, J., Haebig, E., Schneider, J.M. (March 2024). The faciliatory role of rhyme during implicit and explicit word learning. *Poster* presented at the inaugural meeting of the Baton Rouge chapter for the Society for Neuroscience. Baton Rouge, Louisiana, USA.

- **Decker, W.**, Schneider J. M., Cox, C. (October 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. (September 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.**, Schneider, J. M. (July 2023). Neural signal processing for developmental data. *Lightning talk* presented at the annual LSU Summer Undergraduate Research Forum (SURF). Baton Rouge, Louisiana, USA.
- **Decker, W.**, Schneider, J. M. (July 2023). Is EEG really better left alone for developmental datasets. *Poster* presented at the annual LSU Summer Undergraduate Research Forum (SURF). Baton Rouge, Louisiana, USA.
- Carter, M.\*, **Decker, W.**\*, Ferdaus, R.\*, George, K.\*, McDonald, J., Rivers, A.\*, Shoulders, B.\* (April 2023). Effects of note-taking methods on learning. *Poster* presented at the annual Louisiana State University Discover Day Research Symposium. Baton Rouge, Louisiana, USA.
- Forest, M., Lopez, S., **Decker, W.**, Schneider, J. M. (April 2023). The role of vocabulary knowledge in linguistic encoding of motion events: an ERP study. *Poster* presented at the annual Louisiana State University Discover Day Research Symposium. Baton Rouge, Louisiana, USA.
- Riley, W., **Decker, W.**, Haebig, E., Schneider, J. M. (April 2023). Learning novelties: the effects of rhyme, vocabulary, and processing speed on novel word learning in adults. *Poster* presented at the annual Louisiana State University Discover Day Research Symposium. Baton Rouge, Louisiana, USA.
- **Decker, W.**, Fan, T., Haebig, E., Schneider, J. M. (March 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.
- Lopez, S.L., Forest, M. L., **Decker, W.**, Schneider, J. M. (March 2023). The influence of native language on motion event encoding: an ERP study. *Poster* presented at the Cognitive Neuroscience Society's Annual Meeting. San Francisco, California, USA.
- Fan, T., **Decker, W.**, Schneider, J. M. (March 2023). Domain-specific neural profiles of statistical learning of speech and tone in young children. *Poster* presented at the Cognitive Neuroscience Society's Annual Meeting. San Francisco, California, USA.
- Decker, W., Haebig, E., Schneider, J. M. (November 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/GNM8]
  - Forest, M., Lopez, S., **Decker, W.**, Schneider, J. M. (November 2022). The influence of grammar on perception of repeated motion events. *Poster* presented at the annual University of Louisiana at Lafayette Undergraduate Research Conference. Lafayette, Louisiana, USA.
  - Wyble, A., **Decker, W.**, Haebig, E., Schneider, J.M. (November 2022). Rhyme and reason: the effects of rhyme on retrieval from semantic memory. *Poster* presented at the annual

University of Louisiana at Lafayette Undergraduate Research Conference. Lafayette, Louisiana, USA.

**Decker, W.**, Schneider, J.M. (April 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 Student Linguistics Meet-Up, Louisiana State University

Using neuroimaging to examine statistical learning.

Joint meeting of the Department of Psychology and Department of Communication Sciences and Disorders, Louisiana State University

A pipeline for developmental EEG data

## Awards and Honors

2024 – 2028	President's Fellowship, Georgia Institute of Technology Amount: \$22,000
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 Distinguished Undergraduate Research Candidate, Louisiana State University

# **Funding**

2023 LSU Discover Undergraduate Summer Research Grant

LSU Discover Undergraduate Research Program, Louisiana State University

Project title: A Universal Preprocessing-Pipeline for Event-Related Potentials (ERPs) in

Developmental Electroencephalography (EEG) Research.

Amount: \$3,000

## Memberships

2023 – Society for Psychophysiological Research

Student Member

2023 – Society for the Neurobiology of Language

Student Member

2022 – 2023 Cognitive Neuroscience Society

Undergraduate Student Member

## Skills and Other

Languages English (native), German (C1)

Programming Other Certifications

Python, R, MATLAB, Bash LaTeX, git CITI Responsible Conduct of Research