

# Cade Abrams, PhD

As an accomplished data scientist and researcher, I excel in cleaning, analyzing, and managing data sets to derive technical insights to advance research and inform decisions. My passion lies in solving complex problems by leveraging advanced analytical techniques, including predictive models. Trained as an interdisciplinary scientist and educator, I am skilled in effectively communicating complex results to technical and non-technical audiences.



## EXPERIENCE

Aug  
2022  
|  
Nov  
2023

### ● Postdoctoral Research Fellow – Data Scientist

University of South Carolina

📍 Columbia, South Carolina

- Conduct advanced statistical analyses using R, including regression modeling and hypothesis testing, to extract meaningful insights for academic manuscripts.
- Apply innovative data processing techniques, enhancing sensitivity to developmental changes resulting in effect sizes 3 times larger than traditional techniques.
- Collaborate with cross-functional and international teams to conduct statistical analyses, optimize data processing, and ensure the success of ongoing research projects.
- Manage project workflows effectively on GitHub, streamlining research processes through version control and collaborative tools.

Aug  
2019  
|  
Aug  
2022

### ● Doctoral Graduate Assistant

University of South Carolina

📍 Columbia, South Carolina

- Collaboratively managed a 4-year project through data collection, management, cleaning, and predictive modeling to advance motor skill and cognitive assessments resulting in 5 publications and 12 presentations.
- Saved 42 manual hours across 8 data collections with custom R functions, designed to improve data processing efficiency and reduce data entry errors.
- Developed custom data indices for ROTC yielding actionable insights to optimize training, resulting in a 16% increase in ACFT pass rates across 1.5 years (~135 Cadets in sample).



## SELECT PROJECTS

Summer  
2023

### ● 3-D Model of Motor and Cognitive Solutions

🔗 <https://github.com/Tcabrams44/complexity-dual-task-conceptual>

Python code creates 3 visual diagrams, simplifying complex motor-cognitive relations for non-technical audiences.

- Interdisciplinary Research
- Data Visualization
- Jupyter Notebook
- Creativity

Spring  
2023

### ● Beyond Traditional Approaches: Examining the Impact of SKIPping with PAX on Post-Error Slowing in Rural Preschoolers

🔗 [https://osf.io/jyzpx/?view\\_only=24a908b0a4c842b2843f43a4a37bfd73](https://osf.io/jyzpx/?view_only=24a908b0a4c842b2843f43a4a37bfd73)

Open Science Framework project for statistical analysis of cutting-edge data processing methods in an academic manuscript.

- Quantitative Analysis
- Data Visualization
- Data Interpretation
- Hypothesis Testing

Spring  
2021

### ● Custom R Script for Processing and Scoring Army Combat Fitness Test Results

🔗 <https://github.com/Tcabrams44/ACFT-Custom-Script>

R functions score raw ACFT event data, including times, accurately and efficiently.

- Custom Functions
- Data Wrangling
- Automation
- Data Processing

## CONTACT INFO

📞 +1(234)-576-8910

✉ [cade4420@gmail.com](mailto:cade4420@gmail.com)

🌐 [github.com/Tcabrams44](https://github.com/Tcabrams44)

in [cade-abrams-phd](https://www.linkedin.com/in/cade-abrams-phd)

For more information, please contact me via email.

## EDUCATION

### BS in Exercise Science

Lander University  
Aug 2017

### MAT in Physical Education

University of South Carolina  
Aug 2019

### PhD emphasis in Motor Behavior

University of South Carolina  
Dec 2022

Subspecialties in: **Statistics**  
and **Cognitive Neuroscience**

## SKILLS

R  
Python  
Markdown  
Statistical Analysis  
Data Cleaning  
Data Wrangling  
Experimental Design  
Microsoft Excel

### Commonly Used Libraries

R  
broom · conflicted · dplyr ·  
ggplot2 · Hmisc · lubridate ·  
magrittr · purr · readr ·  
stringr · tibble

### Python

glob · ipywidgets · Matplotlib  
· NumPy · os · pandas ·  
PsychoPy · random · scikit-  
learn · shutil