

# Josue E. Rodriguez



## EDUCATION

### University of California, Davis

PhD, Quantitative Psychology  
Emphasis in Computational Social Science

Davis, CA  
Expected 2024

### Cal Poly Humboldt

MA, Experimental Psychology  
Minor in Statistics  
BA, Psychology

Arcata, CA  
2019  
2017

## EXPERIENCE

### Data Scientist Intern, Spacee

Sep 2021 – Dec 2021

Conducted exploratory data analysis, developed unsupervised learning models, and performed research around data key to successful company products and metrics. Implemented Python code into a core data pipeline and conducted field research around the company's operational envelope. Brought an industrious and enthusiastic attitude to work every day.

## PUBLICATIONS

### Peer-reviewed

3. **Rodriguez, J. E.** and Williams, D. R. (2021). Painless posterior sampling: Bayesian bootstrapped correlation coefficients. [preprint](#). Accepted at *The Quantitative Methods for Psychology*.
2. Karr, J. E., **Rodriguez, J. E.**, Goh, P. K., Martel, M. M., and Rast, P. (2021c). The unity and diversity of executive functions: A network approach to lifespan development. Accepted at *Developmental Psychology*.
1. Williams, D. R. and **Rodriguez, J. E.** (2020). Why Overfitting is Not (Usually) a Problem in Partial Correlation Networks. [preprint](#). Accepted at *Psychological Methods*.

### Under Review

3. **Rodriguez, J. E.**, Williams, D. R., and Bürkner, P.-C. (2021a). Heterogeneous Heterogeneity by Default: Testing categorical moderators in random-effects meta-analysis. [preprint](#). Under review at *Psychological Methods*.
2. **Rodriguez, J. E.**, Williams, D. R., and Rast, P. (2021b). Who Is and Is Not "Average"? Random effects selection with spike-and-slab priors. [preprint](#). Under review at *Psychological Methods*.
1. Karr, J. E., **Rodriguez, J. E.**, Goh, P. K., Martel, M. M., and Rast, P. (2021b). A network analysis of executive functions in children and adolescents with and without attention-deficit/hyperactivity disorder. Under review at *Developmental Neuropsychology*.

### Working Papers

3. Williams, D. R., **Rodriguez, J. E.**, and Bürkner, P.-C. (2021). Putting Variation into Variance: Modeling between-study heterogeneity in meta-analysis. [preprint](#).
2. Rast, P., Martin, S. R., and **Rodriguez, J. E.** (2020). Bayesian multivariate garch models for within-person variance forecasting. [preprint](#).
1. **Rodriguez, J. E.**, Williams, D. R., Rast, P., and Mulder, J. (2020). On Formalizing Theoretical Expectations: Bayesian Testing of Central Structures in Psychological Networks. [preprint](#).

## POSTER PRESENTATIONS

7. Karr, J. E., **Rodriguez, J. E.**, Rast, P., and Martel, M. M. (2021a). Applying network analysis to executive functions: Differences in network parameters between children with and without attention-deficit/hyperactivity disorder. 50th Annual Meeting of the International Neuropsychological Society

6. Hang, S., **Rodriguez, J. E.**, Garcia, R., and Kilgore, H. (2018). Assessment of peripheral BDNF variability over 30 days in healthy adults. 48th annual meeting of the Society for Neuroscience. San Diego, CA, United States
5. Chu, B., **Rodriguez, J. E.**, Sherburne, B., and Gaffney, A. M. (2018). Hella dope, confident understanding mediates the relationship between slang and multiple belonging needs. 16th meeting of the International Conference on Language and Social Psychology. Edmonton, Alberta, Canada
4. Ortiz, N., **Rodriguez, J. E.**, Sherburne, B., Joma, V., and Aberson, C. (2018). Blaming it on affirmative action: perceptions of denied opportunity. 98th annual meeting of the Western Psychological Association. Portland, OR, United States
3. Siefert, E., Scott, B., **Rodriguez, J. E.**, Chu, B., Kijisriopas, B., and Gaffney, A. M. (2018). Confidence of understanding mediates the relationship between ingroup slang and a sense of peer similarity. 98th annual meeting of the Western Psychological Association. Portland, OR, United States
2. Kuljian, O., Sherburne, B., Camarena, J., **Rodriguez, J. E.**, Hackett, J. D., and Gaffney, A. M. (2018). Effects of nationalist leadership on identification with humanity. 19th annual meeting of the Society for Personality and Social Psychology. Atlanta, GA, United States
1. **Rodriguez, J. E.**, Sanchez, K., Camarena, J., Clark, C., and Swancoat, B. (2017). Mazes and memory: lifestyle and experience in spatial ability. 97th annual meeting of the Western Psychological Association, Sacramento, CA, United States

## SOFTWARE

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6. **SSranef** (creator). An **R** package for Bayesian mixed effects models with spike-and-slab priors on the random effects. Corresponds to the methods in [Rodriguez, J. E. et al. \(2021b\)](#). [GitHub](#).
5. **blsmeta** (author). An **R** package for Bayesian meta-analytic models, including fixed-effects, two-level, and three-level random-effects models. Moderators can be included for both the location and scale parameters via location-scale modeling. [GitHub](#).
4. **psymetaddata** (creator). An **R** package containing a collection of documented open datasets from meta-analyses in psychology research [CRAN](#). [GitHub](#).
3. **glaxo** (creator). An **R** package implementing the relaxed lasso algorithm for Gaussian Graphical Models [GitHub](#).
2. **BBcor** (author). An **R** package for efficient sampling from the posterior distribution of various correlation coefficients. [CRAN](#). [GitHub](#).
1. **bayeslincom** (creator). An **R** package for testing linear combinations of Bayesian posterior samples. [CRAN](#). [GitHub](#).

## TEACHING EXPERIENCE

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### Graduate Student Teaching Assistant

University of California, Davis

Statistical Analysis of Experiments

Regression Modeling

### Graduate Student Teaching Assistant

Cal Poly Humboldt

Introduction to Statistics

Social Psychology

## COURSEWORK

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- Probability Theory
- Analysis of Variance
- Multivariate Statistics
- Applied Bayesian Statistics
- Multilevel Modeling
- Regression Analysis
- Computational Social Science
- Psychometrics
- Causal Modeling

## HONORS AND AWARDS

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- NASEM FORD Fellowship, Honorable Mention 2020
- Outstanding Student of the Year Nominee, Cal Poly Humboldt 2017
- Presidential Scholar, Cal Poly Humboldt 2017
- Woolford Fellow of the Eureka Rotary Club 2017

## PROFESSIONAL CERTIFICATIONS

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### **DataCamp**

Data scientist with Python

2018

Data scientist with R

2018

## TECHNICAL SKILLS

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- **Programming:** R (expert), Python (proficient), SQL (proficient), HTML (competent), CSS (novice), C# (novice)
- **Tools:**  $\text{\LaTeX}$ , Git, Docker, SPSS, Mathematica, Tableau, MATLAB, Snowflake, Airflow

## AD-HOC REVIEWER

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- Entropy (under the Supervision of Dr. Philippe Rast)
- Advances in Methods and Practices in Psychological Science