BRENDAN CULLEN

I am a PhD student and National Science Foundation GRFP Fellow in the Department of Psychology at the University of Oregon. As an aspiring data scientist, my long-term goal is to contribute to open-source software and to apply my computational skills as a researcher within an industry setting focused on enhancing health across the lifespan.

🎓 EDUCATION

PhD Student, Psychology
University of Oregon
📍 Eugene, OR
2022 | 2017

· My research takes a translational (neuro)science approach toward predictive modeling of real-world health behaviors and health outcomes within a precision medicine framework.

· I am currently pursuing a 5-course Data Science Specialization taught entirely in R, focused on data visualization, functional programming, and machine learning.

MS, Pyschology
University of Oregon
📍 Eugene, OR
2019 | 2017

· Thesis: Comparing cognitive and affective predictors of craving

BA, Neuroscience
Middlebury College
📍 Middlebury, VT
2015 | 2011

· Thesis: Neurophysiological correlates of self-referential activity in meditators and non-meditators
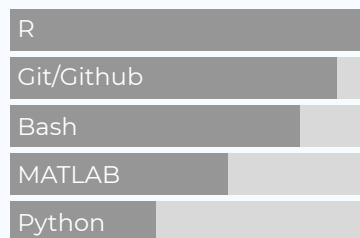
💼 SELECTED POSITIONS

Lab Instructor
PSY 612: Data Analysis II
📍 University of Oregon
2020

· Designed and taught lab sections on Correlations, Univariate Regression and the General Linear Model, Regression with Categorical Predictors, Interactions, and Factorial ANOVA.

Lab Instructor
PSY 611: Data Analysis I
📍 University of Oregon
2019

· Designed and taught lab sections on R Basics and Descriptive Statistics, Matrix Algebra, Data Transformation with dyplr, Pre-registration, and Paired samples t-tests.

Graduate Employee
Social and Affective Neuroscience Lab
📍 University of Oregon
2018 | 2017

· Selected self-report measures and co-designed interventions for NCI-funded RCT comparing behavioral response and cognitive reappraisal interventions for de-valuing unhealthy food

· Created automated workflow for daily backup of fMRI backup via a high performance computing cluster

Research Assistant
Clinical and Affective Neuroscience Lab
📍 Brown University
2017 | 2015

· Cleaned and scored self-report data (20+ measures) from an NIH-funded 3-armed RCT comparing focused awareness meditation, open-monitoring meditation, and Mindfulness-Based Cognitive Therapy on clinical efficacy for depression

· Led a project investigating the effects of meditation training on EEG and behavioral measures of self-referential processing

CONTACT

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PROGRAMMING SKILLS

R
Git/Github
Bash
MATLAB
Python

MORE INFO

See full CV at bcullen.rbind.io/cv for more complete list of positions and publications.

2017 | 2015

Research Assistant
Embodied Neuroscience Lab   📍 Brown University

- Collected EEG data for pilot RCT testing a neuro-muscular-immune model of chronic fatigue in female cancer survivors
- Designed custom software in MATLAB to implement novel EEG/EMG paradigm for measuring neural correlates of tactile acuity and precision grip strength

📖 SELECTED PUBLICATIONS

2018

Dismantling Mindfulness-Based Cognitive Therapy: Creation and validation of 8-week Focused Attention and Open Monitoring interventions within a 3-armed randomized controlled trial
Behaviour and Research Therapy, 101, 92-107.

- Britton, W.B., Davis, J., Loucks, E.B., Peterson, B., **Cullen, B.**, Reuter, L., Rando, A., Rahrig, H., Lipsky, J. & Lindahl, J. (2018).

2018

Comparing embodiment experiences in expert meditators and non-meditators
Consciousness and Cognition, 65, 325-333.

- Xu, A., **Cullen, B.**, Penner, C., Zimmerman, C., Kerr, C.E., & Schmalzl, L. (2018)

2018

Dose-dependent effects of testosterone on spatial memory in adult male rats
Psychoneuroendocrinology, 89, 120-130.

- Wagner, B., Braddick, V. Batson, C., **Cullen, B.**, Miller, E. & Spritzer, M. (2018).

⌥ WORKSHOPS TAUGHT

2020

Introduction to Git and Github
Psychology First Year Research Seminar   📍 University of Oregon

- Introductory workshop for first-year psychology PhD and Masters students on basics of using Git and Github for version control

2019

Intermediate Git and Github
UO Data Science Club   📍 University of Oregon

- Intermediate Git/Github workshop for University of Oregon's Data Science Club, including discussion of merge conflicts, branching, pull requests, and best practices for collaborative Github projects

💻 ADDITIONAL TRAINING

2020

Introduction to Machine Learning with the Tidyverse
rstudio::conf(2020)   📍 San Francisco, CA

- Two-day workshop on machine learning with tidymodels taught by Alison Hill

🤝 SELECTED SERVICE

2020

Co-organizer
Cascadia R Conf 2020   📍 Eugene, OR

- Updated website for 2020 conference, designed new hex sticker, secured additional sponsors

2018

Co-organizer
Eugene Brainhack   📍 Eugene, OR

- Co-organized a two-day Brainhack event hosted at the University of Oregon that involved collaborative software development projects related to computational neuroscience and psychology