

Constanza Inez C. de Dios, Ph.D.

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Summary

Cognitive neuroscience-trained data analyst with background in human electrophysiological and behavioral research. Proficient in applied data analysis of clinical experimental and observational data. Enthusiastic project collaborator dedicated to systematic problem solving.

Highlights

- Data science approaches to analyzing physiological, behavioral, and genomic data
- Design, code, and implementation of lab experiments with human participants
- Data reduction and wrangling
- Fluent in R
- Basic proficiency in Python and SAS
- Effective instructor and speaker

Experience

Instructor (Non-Tenure Research)

Center for Neurobehavioral Research on Addiction
Department of Psychiatry and Behavioral Sciences

April 2023—Current
University of Texas Health Science Center
Houston, Texas, USA

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- Analyze psychiatric, physiological, EHR, genomic, biomarker, clinical data via generalized linear models and multivariate statistics.
 - Apply frequentist or Bayesian inference as appropriate in substance use, mood disorder, cognitive, and electrophysiological data.
 - Contexts: randomized controlled trials, observational studies, meta-analyses.
 - Identify most important predictors of substance misuse through machine learning.
 - Apply alternative statistical tools to non-experimental data such as generalized additive models, meta-analyses, and latent variable mixture models.
 - Service grants across UTH departments.
 - Process and analyze running cumulative total 40 MB (450k observations, 5k variables) across projects.

Graduate Researcher and Instructor

Cognitive Electrophysiology and Clinical Neuroscience Lab
Department of Psychology

September 2013—August 2019
University of South Florida
Tampa, Florida, USA

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- Applied electrophysiological methods in studying reward salience and visual attention.
 - Signal-processed a cumulative 120GB of EEG sensor data from 300 human participants over five separate experiments.
 - Analyzed sensor data using principal components analyses and repeated-measures analyses of variance (resulted in 9 poster presentations).
 - Supervised 8 students in signal-processing 56GB electrophysiological data.
 - Crafted and delivered in-person course lectures and learning assessments for 45 students every semester as lab instructor and instructor of record.

Education and Training

Postdoctoral Fellowship

Psychiatry, University of Texas Health Science Center

September 2019—March 2023
Houston, Texas, USA

Doctor of Philosophy

Psychology, University of South Florida

September 2013—August 2019
Tampa, Florida, USA

Bachelor of Science

Psychology, St. Mary's College of California

September 2008—May 2012
Moraga, California, USA