Deshawn Sambrano

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Education

Harvard University 2023
PhD in Psychology: Specialty in Cognitive Neuroscience

California State University, Fullerton (CSUF) 2017
BA in Psychology, Minor in Philosophy, *Summa Cum Laude*

Technical Skills

Programming Languages: Python, R, SQL, BASH, LaTeX, JavaScript, C, MATLAB
Packages: Pandas, Numpy, Scipy, PyTorch, Tensorflow, scikit-learn, lmer4, stats-models, brms
Statistical Techniques: Machine Learning (e.g., Neural Networks, XGBoost, etc.), Bayesian Statistics, Causal Inference Modeling, Time Series Analysis, Multilevel Linear Modeling, Computational Modeling

Select Data Science Experience

California Institute of Technology Pasadena, CA
Applied Scientist in Economics Aug 2022 - present
- Utilized machine learning techniques to evaluate the impact of antisocial behaviors on player retention and shared actionable insights with stakeholders for a popular first person shooter
- Created a time series, auto encoder, machine learning model to detect data anomalies in Python
- Provided insights for research design, statistical modeling, interpretation, and data visualization

Harvard University Cambridge, MA
Doctoral Researcher Aug 2019 - present
- Managed research dedicated to exploring the effects of uncertainty on learning and decision making
- Designed and developed 20 interactive tasks in Python and JavaScript for data collection; collected data from over 6000 participants; resulted in 7 publications (including 4 in review) and over 30 presentations at local and national conferences funded by 5 research grants and fellowships
- Analyzed over 200 million data points of pupil dilation data as a measure of emotion using Python
- Forecasted emotions and decisions using a variety of techniques including Computational Modeling, Bayesian Statistics, and Multilevel Linear Modeling using Python and R
- Conducted simulations to evaluate best practices for research design and model selection

New York University New York, NY
Graduate Researcher Aug 2017 - July 2019
- Designed and conducted an experiment to explore the effects of fear on coordinated decisions and published the findings in a scientific journal
- Estimated action values with a deep reinforcement learning neural network using PyTorch
- Conducted a double-blind, placebo controlled psychopharmacology study comparing decisions under uncertainty using a computational model analyzed in Python
- Supervised 3 theses; oversaw research methodology, research hypotheses, and statistical analyses

Relevant Work Experience

Center for Research on Educational Access and Leadership (C-REAL) Fullerton, CA
Statistician Lead Oct 2012 - Dec 2014
- Managed 4 projects evaluating their impact on student's academic experience and performance
- Presented results and data driven insights to stakeholders; led statistics workshops; arranged and spearheaded meetings; diagnosed and resolved data analysis and write-up issues officewide