Brian K. Hurley

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in bkhurley
⌂ bkhurley

SKILLS

Languages: R, Python, MATLAB, SQL, Unix shell
Tools: ggplot2, dplyr, tidyr, caret, RStudio, Jupyter Notebook, pandas, Matplotlib, seaborn, NumPy, SciPy, scikit-learn, PostgreSQL, MySQL, git, svn
Analysis: regression, mixed-effects/multilevel/longitudinal modeling, factor analysis, hypothesis tests, supervised machine learning

EXPERIENCE

PhD Researcher, UC Davis Center for Mind and Brain   September 2010 - Present

- Create and lead multiple research projects on human auditory processing using controlled experiments, cognitive tasks, questionnaires, psychophysics, and motion capture; findings reported in two peer-review articles (one currently under review) and multiple conference presentations
- Develop extensive R, MATLAB, and Python code for obtaining, cleaning, visualizing, and statistically modeling data
- Collaborate across institutions and disciplines to leverage complimentary skills; has led to a published collaborative project and optimization of a popular experiment paradigm
- Developed two software programs that implement a Bayesian framework for estimating perceptual thresholds in novel experiment paradigms

Teaching Assistant, UC Davis, Psychology Department   September 2010 - Present

- Translate complex topics in human behavior, neuroscience, and research methods to new learners in understandable, compelling terms
- Deliver presentations to audiences that range from small groups to hundreds of students
- Assist undergraduate students in improving writing skills

Research Assistant, UT Dallas School of Behavioral & Brain Science   January 2008 - May 2010

- Collected and analyzed behavioral data for research on human memory.
- Awarded Undergraduate Research Scholar Award grant and School of Behavioral & Brain Sciences Honors with Distinction for independent research project on memory for rhythmic patterns.
- Trained research assistants and assisted with lab management.

SIDE PROJECTS

Diablo Velo – https://github.com/bkhurley/diablo_velo

- Used Python to analyze and predict cyclists' moving times for a popular cycling segment on Strava
- Obtained cycling data from Strava and weather data from Weather Underground using BeautifulSoup
- Munged, visualized, and modeled data using pandas, matplotlib, seaborn, and scikit-learn

EDUCATION

PhD, Psychology (Cognitive Neuroscience), University of California, Davis   December 2017 (expected)

BA, Psychology, University of Texas at Dallas, *Magna Cum Laude*   May 2010

CERTIFICATIONS

The Complete SQL Bootcamp, *Udemy*   August 2017

Getting and Cleaning Data, *Coursera*   June 2017

Machine Learning: Regression, *Coursera*   December 2016

Machine Learning Foundations: A Case Study Approach, *Coursera*   September 2016