Brian K. Hurley

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EXPERIENCE

Insight Data Science *Palo Alto, California*
Data Science Fellow *January 2018 - Present*

- Developed "Beat the Crowd," a Python-based web application for predicting crowd levels on Bay Area Rapid Transit (BART)
- Used Pandas to collect and clean 6 years of BART ridership data, scraped weather history from Weather Underground using lxml, and stored data in PostgresSQL
- Visualized data using Matplotlib and Seaborn.
- Applied machine learning techniques to predict passenger volume using a linear regression algorithm with Scikit-Learn
- Deployed an interactive front end using Flask with Bootstrap

UC Davis Center for Mind and Brain *Davis, California*
PhD Researcher *September 2010 - January 2018*

- Created and lead multiple research projects on human auditory processing using controlled experiments, cognitive tasks, questionnaires, psychophysics, and motion capture
- Developed analysis pipelines in R, MATLAB, and Python for obtaining, cleaning, visualizing, and statistically modeling data
- Collaborated 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

UC Davis, Psychology Department *Davis, California*
Teaching Assistant *September 2010 – December 2017*

- Translated complex topics in human behavior, neuroscience, and research methods to new learners in understandable, compelling terms
- Delivered presentations to audiences that ranged from small groups to hundreds of students
- Assisted undergraduate students in improving writing skills

UT Dallas School of Behavioral & Brain Science *Richardson, Texas*
Research Assistant *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.

EDUCATION

University of California, Davis *Davis, California*
Ph.D., Psychology (Cognitive Neuroscience) *January 2018*
M.A., Psychology (Cognitive Neuroscience) *December 2013*

University of Texas at Dallas *Richardson, Texas*
B.A., Psychology, *Magna Cum Laude* *May 2010*

SKILLS

Languages: Python, R, MATLAB, SQL
Tools: Pandas, NumPy, SciPy, Scikit-Learn, Matplotlib, Seaborn, lxml, ggplot2, dplyr, tidyr, git, svn

SIDE PROJECTS

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

- Used Python to analyze and predict cyclists' moving times for a cycling segment on Strava.com
- Obtained cycling data from Strava API and scraped weather data from Weather Underground
- Munged, visualized, and modeled data using Pandas, Matplotlib, Seaborn, and Scikit-Learn