DAN VATTEROTT

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New York, NY | www.danvatterott.com

PROFILE

- Data-driven, PhD trained neuroscientist with 6+ years experience in scripted analytics (MATLAB, Python)
- Analyzed large, multivariate datasets using regression, classification, dimensionality reduction, and clustering algorithms, which has led to multiple publications and presentations
- Extensive knowledge of the statistics underlying hypothesis testing and regression
- Developed novel, creative experiments that precisely answer abstract problems
- Maintain a blog explaining how to use machine learning algorithms (www.danvatterott.com/bloh/)

SKILLS

- **Programming:** Python (including sklearn, pandas, keras, scipy, matplotlib, psychopy)
- **Data Analysis:** MATLAB, Excel (including pivot tables and custom visual basic commands), SPSS

PROFESIONAL EXPERIENCE

COLUMBIA UNIVERSITY | New York, NY   **June 2015 – Present**
Postdoctoral Research Fellow | Department of Neuroscience
- <u>Data mining</u>: used unsupervised learning algorithms to extract features from complex datasets such as eye-movements and electrophysiological signals
- <u>Data science</u>: used regression and classification algorithms on large datasets (~50 gb) to unlock quantitative insights
- Programmed a real-time task examining how distraction changes over time which has led to a conference presentation
- Managed weekly reading groups on neuroscience research (15 members) and novel methods in statistics and machine learning (3 members)
- Mentored and managed 2 full-time technicians in communicating research, experimental design, programming, and statistics

UNIVERSITY OF IOWA | Iowa City, IA   **August 2010 – June 2015**
Graduate Researcher | Department of Psychology
- <u>Modeling</u>: Developed regression model that predicts where people will choose to pay attention
- Managed 10+ independent research projects from conception to dissemination
- Analyzed data using hypothesis testing techniques (including regression and significance testing)
- Mentored and managed 8 undergraduate research assistants about research and analyzing data
- Taught 5 courses including Research Methods (rated 5.8/6 by students)
- Published 8 research articles and presented at 10 international conferences

SAINT PAUL HEART CLINIC | St. Paul, MN   **August 2009 – August 2010**
Research Assistant | Cardiology Clinic
Topic: What healthcare variables best predict long-term patient outcomes?
- Managed a database of 1000+ heart failure patients
- Developed methods for using healthcare data to predict surgical success resulting in 2 publications

EDUCATION

UNIVERSITY OF IOWA | Iowa City, Iowa   **August 2010 – June2015**
Doctor of Philosophy, Psychology, Concentration in Cognition and Perception
- **Relevant Courses:** Intermediate Statistical Methods, Behavioral Research Methods, Design of Experiments

UNIVERSITY OF WISCONSIN | Madison, Wisconsin   **August 2006 – May 2009**
Bachelor of Science, English and Psychology
- **Relevant Courses:** Introduction to Statistics, Experimental Psychology