

Matar Haller

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Education

2010 - 2016

Ph.D., Neuroscience, UC Berkeley
National Science Foundation Graduate Research Fellow

2003 - 2007

B.A., Cognitive Science; Psychology, UC Berkeley
Highest Distinction in General Scholarship
Departmental Citation for Cognitive Science

Work Experience

2016

Fellow, Insight Data Science, Palo Alto, CA
Engineered an algorithm to identify onset and offset times of unidentified speakers in audio streams by combining dimensionality reduction and unsupervised clustering. Explored neural networks for latent space clustering.

2010 - 2016

Graduate Student Researcher, UC Berkeley
[1] Recorded activity from surgically implanted electrodes on human brains. Implemented filtering, PCA, clustering, regressions and permutation tests to link neuronal activity with behavior.
[2] Developed novel method for extracting oscillatory components from power spectra using robust linear regression and Gaussian mixture models.

2005-2007

Research Assistant, UC Berkeley
Trained and supervised a team of research assistants in conducting and analyzing EEG experiments.

2005 - 2013

Graduate Student Instructor, UC Berkeley
Neuropsychology, Drugs & the Brain, Cognitive Science
[1] Constructed lesson plans, graded exams and assignments, assigned readings, mentored, guest lectured.
[2] Awarded Outstanding Graduate Student Instructor.
Average student evaluation: 6.7/7

Projects

2016

OkNLP, School of Information, UC Berkeley
[1] Combined NLP (tf/idf, tokenization) with machine learning and statistics (NMF, ensemble methods, log-odds ratio, cross validation, grid search) to analyze free text writing in data profiles across demographic groups.
[2] Accepted and presented as a talk at Scipy 2016 in Austin, TX

2014

Software Carpentry, Stanford University, CA
Assisted in teaching graduate students Python, shell, and version control.

2014

Women in Tech, PyData Silicon Valley
Taught programming to high school girls at PyData Women in Tech workshop.

Military Service

2007- 2009

Tank Instructor, Armored Corps, Israel Defense Forces
Expert on the weapons control system of the Merkava Mark II tank. Trained new recruits, commanders and officers.

Skills

Computer languages

Python (scikits-learn, pandas, scipy, numpy, nltk), MATLAB, R, Lisp, git,

ECoG/EEG

Eprime, Presentation, BioSemi, pygame, VisionAnalyzer

Languages

Hebrew (native)
English (native)
Spanish (intermediate)

Relevant Courses

Applied Natural Language Processing

Applied Statistics and Machine Learning

Mining and Modeling of Neuroscience Data

Python Computing for Data Science

Neural Computation