

SARA F. POPHAM

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EDUCATION

University of California, Berkeley 08/2015 – 05/2021
Ph.D. Computational Neuroscience Berkeley, CA

Johns Hopkins University 08/2010 – 05/2013
B.A. Applied Mathematics and Statistics · Psychology (Double Major) Baltimore, MD

EXPERIENCE

University of California, Berkeley 08/2015 – present
Graduate Student Researcher Berkeley, CA

Research

- Performed machine learning analyses of large neuroimaging timeseries datasets to analyze novel experimental hypotheses
- Led multiple collaborative research projects with industry partner, delivered detailed progress reports, python code, and data every 6 weeks
- Invented entirely new data-driven analysis methods to spatially compare high-dimensional datasets
- Contributed to open-source projects for data visualization ([pycortex](#)) and cloud storage ([cottoncandy](#))
- Converted internal code used by all lab members to be compatible with cloud-based storage
- Coordinated multiple parallel research projects, determined when necessary to change course of analyses
- Invited to present research at 2 domestic conferences, published 1 lead-author publication
- Won national fellowship competition for dissertation research proposal, funding one year of study

Teaching

- Served as Graduate Student Instructor for an undergraduate course in Probability Theory for Computer Scientists ([Website](#)) and primary instructor for a graduate course in Statistics for Neuroscientists ([Github](#))
- Created and curated materials for a short course on computational tools for incoming first-year PhD students, many without computational backgrounds ([Github](#))
- Mentored 3 PhD students on first-year projects, and 1 undergraduate student on a year-long project

Service and Outreach

- Selected to be the sole student member of the graduate admissions committee, read applications for Computational and Cognitive areas, led an effort to make the application process more equitable
- Taught hands-on monthly science lessons in elementary schools, served on the campus-wide steering committee

Massachusetts Institute of Technology 06/2013 – 05/2015
Laboratory Manager Cambridge, MA

- Wrote custom code to collect, analyze, and visualize human behavior data from approximately 1000 participants
- Designed lab website from scratch, still in use today ([Link](#))

Johns Hopkins University 01/2012 – 05/2013
Research & Teaching Assistant Baltimore, MD

- Contributed to 3 research projects in the lab, worked independently on statistical analyses of behavioral data
 - Awarded the G. Stanley Hall Prize, given to one graduating student in Psychological and Brain Sciences
- Led a discussion section for a course in Discrete Mathematics as an undergraduate student

SKILLS

Technical: Python (NumPy, SciPy, Scikit-Learn, Pandas, Matplotlib) · Linux · SQL · Slurm · Amazon S3 · Jupyter Notebooks · MATLAB · R · \LaTeX · HTML/CSS · Javascript

Statistics: Linear Regression · Dimensionality Reduction · Cross Validation · ANOVA · A/B Testing · Probability Theory · Clustering · HMMs · Graph Theory · Natural Language Processing