Kathleen Hupfeld

Postdoctoral Researcher | Johns Hopkins School of Medicine

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Highlights

- ➜ **RESEARCH:** Designed and carried out dozens of high-impact, human-centered research projects, including both in-person experiments and survey research. Significant experience leading single- and multi-site teams and coordinating multiple projects simultaneously. Named to the **Forbes 30 Under 30** Science List in 2023.
- ➜ **COMMUNICATION:** Highly skilled communicator, with **40+ peer-reviewed papers** (16 first author) cited >700x, 2 science articles for kids, 2 popular media pieces, and over 25 conference talks/posters. Served as Lead Scientific Editor for 1 book.
- ➜ **FUNDING:** Extensive experience in project management, and have personally secured **>$890,000** total in national research fellowships and over 30 individual research, leadership, and community service awards. Worked on >15 federally-funded (NASA, NIH, and NSF) projects with budgets totalling >$25 million.

Selected Experience

POSTDOCTORAL RESEARCHER | Neuroradiology
Jan. 2022 – Present | Johns Hopkins School of Medicine | Baltimore, MD

- ➜ **CLINICAL TRIALS:** Managed complex demographic, behavioral, and neuroimaging clinical trial data for two large intervention studies in Alzheimer's disease and aphasia. Coordinated between different stakeholders (patients, physicians, researchers) to assess intervention efficacy and communicate key findings.
- ➜ **MRI METHODS:** Led recruitment, scheduling, and in-person testing of >100 participants for MR spectroscopy methods development projects. Analyzed data as it was collected to yield actionable insights for continued revision of next steps in MR methods testing. Ensured data quality and ethics compliance.
- ➜ **SOFTWARE:** Assisted in development and maintenance of software packages for MR spectroscopy analysis (OSPREY, GANNET). Active role in testing software, monitoring user feedback and concerns, and responding to user queries (>1,000 users). Leadership role in planning and instructing annual user workshop.

GRADUATE RESEARCH FELLOW | Applied Physiology and Kinesiology
Aug. 2017 – Dec. 2021 | University of Florida | Gainesville, FL

- ➜ **SPACEFLIGHT:** Led longitudinal (1.5-2 years/subject) experimental studies of NASA astronauts and ground-based controls to assess brain and behavioral changes after spaceflight. Coordinated collaboration between key stakeholders (NASA, contractors, academics) to share and analyze complex multi-time point datasets and publish manuscripts, conference abstracts, and technical reports.
- ➜ **AGING:** Personally designed and executed rigorous, multi-day, multi-parameter human studies for my dissertation examining brain changes with older age. Was personally responsible for managing budget of >$100,000. Recruited/scheduled all participants. Led collection and analysis of extensive survey data as well as multimodal neuroimaging, brain stimulation, and motion capture data.
- ➜ **GENETICS:** Led local data storage and analysis efforts for survey data collected from 20,000 elderly Americans. Developed multivariate statistical models to examine genetic risk factors for cognitive and mobility declines in aging.

GRADUATE RESEARCHER | Cognition and Cognitive Neuroscience
Aug. 2016 – Aug. 2017 | University of Michigan | Ann Arbor, MI

- ➜ **SURVEY RESEARCH:** Used mixed-methods approach to develop a novel questionnaire probing hyperfocus in ADHD. Conducted in-depth interviews with patients/controls. Used emerging themes from interviews to guide item development. Validated questionnaire using 5 cohorts of 200-400 individuals. Leading ongoing efforts to update items based on user feedback and Item Response Theory-based scale validation. Version 1 (published 2019) cited >140x.

Summary

Human researcher with >10 years of experience using mixed methods to extract actionable insights from studying human performance, preferences, and cognition.

Skills

TECHNICAL

Programming:
Bash (Linux Shell), MATLAB, LaTeX, Python, SQL

Statistical Analysis:
R, SPSS, Stata
Multivariate and Longitudinal Statistics, Item Response Theory, Survey Validation

Survey Design and Distribution:
In-Depth User Interviews, Participatory Design, Qualtrics, Prolific, MTurk

Data Collection and Management:
REDCap, Qualitative and Quantitative Methods, MRI, MR Spectroscopy, Motion Capture, Cognitive Testing

Website Design and Management:
kathleenhupfeld.com
>1,000 clicks/month to blog

LEADERSHIP

Significant experience managing multiple projects at once, overseeing research teams, and maintaining methodological rigor

COMMUNITY SERVICE

Led significant outreach efforts (camps, science fairs, mentorship programs) for young women in STEM

Education

UNIVERSITY OF FLORIDA
Dec. 2021 | Gainesville, FL
PhD in Applied Physiology and Kinesiology

ELON UNIVERSITY
May 2016 | Elon, NC
B.S. in Exercise Science, Neuroscience Minor