Avital Pelakh

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SUMMARY

Experimental researcher and Ph.D. candidate specializing in cognitive psychology and advanced quantitative methods. Proficient in machine learning, statistical modeling, and visualization tools to extract actionable insights from complex datasets. Skilled in collaborating with multidisciplinary teams and communicating findings to diverse audiences.

Research areas/Expertise: learning; reasoning; problem solving; motivation

EDUCATION

PhD	**University of Pittsburgh, Cognitive Psychology**	Expected 2026
	▪ Minor in Quantitative Methodology	
MS	**University of Pittsburgh, Cognitive Psychology**	2023
BS	**Montana State University, Psychology**	2020

RELEVANT WORK EXPERIENCE

Graduate Student Researcher, Learning Research and Development Center, University of Pittsburgh 2020-pres.

Experimental Study: Mindfulness Training to Increase Learning and Engagement in Introductory Physics (OSF)

▪ Data: observational survey data from ~3000 students; Repeated-measures experimental data from ~450 students; Qualitative focus group interviews from 24 students

▪ Responsibilities:
  – *Data collection and management (participant interaction, quality assurance, organization, reporting)*
  – *Design implementation (experimental stimuli, online surveys, logic and randomization, programming)*
  – *Data analysis (coding, psychometrics, generalized linear modeling, mixed effects modeling, visualization)*
  – *Mentoring and team management*

▪ Key contributions:
  – *Redesigned data collection procedures and survey design to increase accuracy and efficiency*
  – *Wrote custom JavaScript code to expand range of behavioral measures collected*
  – *Built statistical models in R to analyze problem solving outcomes*

Independent Research Contractor, Macmillan Learning 2023-2024

▪ Conducted in-person and virtual qualitative classroom observations

SKILLS

Methodology	**Programming Languages and Tools** (**advanced, *proficient)	
▪ Experimental design; AB Testing	▪ R and R Studio**	▪ HTML/CSS*
▪ Survey design	– *dplyr, ggplot2, Shiny, Quarto, etc.*	▪ Qualtrics **
▪ Data cleaning; manipulation	▪ Python*	▪ Jupyter Notebook*
▪ Data visualization; dashboards	– *pandas, numpy, matplotlib, seaborn*	▪ GitHub*
▪ Statistical modeling; hypothesis testing	▪ Databases/SQL*	▪ SPSS*
▪ Machine learning techniques	▪ JavaScript*	▪ NVivo*

COMMUNICATION AND LEADERSHIP

Writing

▪ Co-authored research articles published in peer-reviewed academic journals (2 total; links: JRST, Frontiers in Psych.)

▪ Research articles in preparation or under review (3 first author, 4 total; preprints: arXiv, PsyArXiv)

Research Presentations (posters and talks)

▪ Internal at university (8 first author, 9 total); external at national/international conferences (5 first author, 10 total)

Teaching and Mentoring

▪ Workshops Led: Statistics training for undergraduate interns (3); Interactive data visualization for CAMeL (1)

▪ Teaching Assistant: Cognitive Psychology (250 students)

▪ Mentoring and Advising: Post-Bac/Master's (2 students); Undergraduate Intern/RA (8 students)

ADDITIONAL SKILLS AND DISTINCTIONS

▪ Andrew W. Mellon Predoctoral Fellowship (2025-2026)	▪ Languages: English (fluent); Russian (conv.)
▪ Wiley Top Viewed Article (Journal of Research in Science Teaching, 2023)	▪ A/V Production; Editing; Graphic Design
▪ Dietrich School of Arts and Sciences Graduate Fellowship (2020-2021)	