

# SHIRLEY DUONG, M.S.

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## SKILLS

- Languages: R, STATA, SQL, HTML, JavaScript, CSS, Python, MATLAB
- Statistical analysis: linear and logistic regression, multi-level modeling, cluster analysis, recurrence quantification analysis
- Data visualization: ggplot2, R Markdown, Google Looker Studio, Tableau, ArcGIS, Seaborn
- Assessment development and text coding: Qualtrics, Datavyu, Nvivo, PsychoPy

## WORK EXPERIENCE

Pittsburgh, PA

### Data Analyst at *Trying Together*

09/2022-Present

- Design community and organizational surveys surrounding the early childcare workforce and climate, early childhood initiatives and programs (e.g., [Buzzword](#), [Playful Pittsburgh Collaborative](#)), and professional development to inform operational, collaborator, and stakeholder needs
- Translate and present qualitative and quantitative results via brief research reports and data visualization dashboards to track and support the organization's strategies and goals

### Graduate Student Researcher at the *University of Pittsburgh, Learning Research and Development Center*

07/2018-Present

- Direct 5 projects resulting in 9 peer-reviewed journal articles, 1 book chapter, 3 papers under review, and 3 talks and 20 poster presentations at (inter)national conferences primarily with the [Parents Promoting Early Learning Study](#) on:
  - Links between children's math experiences in the home learning environment (HLE) and their emerging math skills.
  - Innovative methods (i.e., behavioral coding and statistical modeling) for the measurement of the HLE to optimize data (re)use and reduce data collection and coding costs
- Develop, implement, and train 20+ research assistants on transcription coding schemes to capture the temporal sequence and qualitative features of conversations (e.g., types of questions and feedback, talk about math and spatial concepts)
- Execute data cleaning, blending, and pre-processing and exploratory and inferential data analysis of text, observational, assessment, interview, and survey data
- Lead workshops, talks, and meetings on current research findings, statistical methods, and programming (e.g., extracting information from databases, applying *k*-means cluster analysis, data visualization with ggplot2)
- Mentor 10+ undergraduate and post-bacc researchers on early math and language learning projects, resulting 1 journal article, 2 completed undergraduate honors theses, and 5 conference poster presentations

### Statistical and Programming Consultant

12/2021-Present

- Modify, test, and debug code of a cognitive assessment battery for a multi-site, early elementary intervention targeting executive functioning and math skills
- Execute data cleaning, outlier detection, power analyses, visualization, and descriptive and predictive analyses on financial service email campaigns to inform 10+ companies' marketing strategies
- Developed and implemented a qualitative coding scheme capturing themes in interviews for a project on adolescents' social identity development in school
- Conducted reliability analyses of behavioral coding schemes for a music intervention study

### Psychology Course Instructor at the *University of Pittsburgh, Department of Psychology*

08/2021-05/2022

- Lab courses (~30 students): Research Methods, Cognitive Psychology
- Exercised inclusive, student-centered instruction on research methods, data analysis and visualization, and scientific writing
- Prepared and delivered lectures, facilitated discussion, and provided feedback on student research papers

## EDUCATION

**University of Pittsburgh**, Cognitive Psychology, Ph.D.

Expected 2023

*Certificate, Center for the Neural Basis of Cognition* (joint training program at Pitt and Carnegie Mellon University)

National Science Foundation Graduate Research Fellowship (\$138,000 scholarship over 5 years)

**University of New Haven**, Psychology, B.A. (Mathematics Minor)

2017

## RELEVANT COURSES

Machine Learning, Data Science for Psychology and Neuroscience, Data Visualization, Mixed Effects Models, Parallel Distributed Processing, Data Mining (Spring 2023)