SHIRLEY DUONG, M.S.

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SKILLS

- Languages: R, STATA, SQL, Python, HTML, JavaScript, CSS, 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:
    - Innovative methods (transcription coding and statistical modeling) for the measurement of conversations for learning to optimize data (re)use and reduce data collection and coding costs
    - Links between children's learning environments and their emerging math skills
- 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 (e.g., dynamic structures of interactions; see Projects at s-duong.github.io)
- 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 academic intervention
- 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 a qualitative coding scheme capturing themes in interviews for a project on adolescents' identity development
- 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)