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, categorical time series 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 on the early childcare workforce and climate, early childhood initiatives and programs, and professional development to inform operational, collaborator, and stakeholder needs
- Execute cleaning, merging, and pre-processing of data from several sources (e.g., government records, US Census data, geographic data) for qualitative and quantitative analysis
- Translate and present findings 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

- Lead and collect, process, and manage data for 5 projects on:
    - Innovative methods (transcription coding and statistical modeling) for measuring conversations and learning environments to optimize data (re)use and reduce costs
    - Links between children's learning environments and their emerging academic 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 concepts)
- Execute inferential data analysis of text, observational, assessment, interview, and survey data (e.g., modeling dynamic structures of interactions using recurrence quantification analysis; 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-bac researchers completing Honors theses and external research presentations
- **Research impact**: 9 peer-reviewed journal articles, 1 book chapter, 3 first-author papers under review, and 3 talks and 20 poster presentations at (inter)national conferences

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 and implemented a thematic coding scheme for interviews of 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)