SHIRLEY DUONG, M.S.

s-duong.github.io | shirleyduong5@gmail.com | 626-371-6872 | Pittsburgh, PA

EDUCATION

University of Pittsburgh, Cognitive Psychology, Ph.D.   Expected 2024
Certificate, Center for the Neural Basis of Cognition (joint training program at Pitt and Carnegie Mellon University)
- <u>Dissertation</u>**:** "Exploring multi-dimensional profiles of families' home math environments and children's math skills"
- National Science Foundation Graduate Research Fellowship ($138,000 scholarship over 5 years)
- Center for Family Math, Next Generation of Family Math Researchers Dissertation Fellow ($10,000)
- Relevant courses: Data Science, Machine Learning, Data Mining, Data Visualization, Theory of Statistics (upcoming Fall'23)

University of New Haven, Psychology, B.A. (Mathematics Minor)   May 2017

TECHNICAL SKILLS   R, Stata, SQL, Python

- Modeling: Classification, multi-level models, text analysis, cluster analysis, recurrence analysis, growth curve models
- Data visualization and reporting: ggplot2, R Markdown, Jupyter Notebook, Tableau, ArcGIS, Looker Studio, Seaborn
- Assessment development and coding: Qualtrics, Datavyu, Nvivo, PsychoPy

WORK EXPERIENCE

Statistician at *University of Pittsburgh Medical Center, Youth and Family Research Program*   Jun 2023-Present
- Design, evaluate, and interpret models examining genetic and developmental influences underlying alcohol use problems
- Explore new modeling approaches, validation techniques, and statistical tools and packages for longitudinal data analysis, structural equation modeling, measurement invariance testing, and feature selection
- Devise, implement, and document standard analytic protocols based on current trends and best practices in various fields

Data Analyst at *Trying Together*   Sep 2022-Present
- Develop community and organizational surveys on the early childcare workforce and climate, early learning initiatives and programs, and professional development to inform operational, collaborator, and stakeholder needs
- Interview providers to assess the climate of early childhood education and care
- Preprocess and merge survey, census, government records, and geographic data for qualitative and quantitative analysis
- Translate and present research findings via brief reports and interactive data visualization dashboards

Micro-Intern in Higher Education at the *University of Pittsburgh, University Center for Teaching and Learning*   Jun 2023-Aug 2023
- Craft and pilot a survey to assess the impact and sustainability of faculty teaching projects from the Innovation in Education award program ($2M+ to faculty since 2000 to implement new technology or practices into their courses)
- Evaluate past grant reports and conduct interviews to develop research-driven recommendations to increase response rates for future reporting (e.g., personalize solicitation) and ensure accessibility and inclusivity (e.g., best practices for inquiring about gender, racial, and ethnic identities)

Graduate Student Researcher at *the University of Pittsburgh, Learning Research and Development Center*   Jul 2018-Present
- Lead and collect, process, and manage data for 5 projects on: (a) Innovative, efficient, and reliable methods for measuring conversations and learning environments (e.g., automatic classification of math talk); (b) Links between children's learning environments and academic skills
- Preprocess and analyze text, observational, assessment, interview, and survey data (See projects at s-duong.github.io)
- 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)
- Conduct workshops, talks, and meetings on current research findings, statistical methods, and programming (e.g., extracting information from databases, how to conduct *k*-means cluster analysis, data visualization with ggplot2)
- Mentor 10+ undergraduate and post-bac researchers completing honors theses and external research presentations
- <u>Teaching experience</u>: Research Methods in Psychology (Fall 201); Cognitive Psychology (Spring 2022)
- <u>Research impact</u>: 10 peer-reviewed journal articles, 1 book chapter, 1 first-author paper under review, and 3 talks and 20 poster presentations at (inter)national conferences

Statistics and Programming Consultant at *Purdue University; Various*   Dec 2021-Present
- Modify, test, and debug code of a cognitive assessment battery for a multi-site academic intervention
- Executed power analyses, data visualization, and predictive analyses of financial service email campaigns