

Nour al-Zaghloul

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Work Experience

Children's Museum of Pittsburgh (Learning & Research Department) 2023 - 2024

Learning & Research Associate (Data Scientist)

- Developed culturally appropriate data collection instruments including surveys, interview questions, focus group protocols, observation forms, photo voice protocols, embedded data collection, and arts-based data collection.
- Planned and implemented formative evaluation and prototyping activities for exhibits and museum programming.
- Managed data, including data entry and cleaning, coding of qualitative data, and descriptive quantitative data analysis.
- Disseminated research and evaluation findings, including writing and proofreading for journal articles and evaluation reports, delivering conference presentations and posters, and developing infographics, social media posts, podcasts, or other creative modes of dissemination.
- Supported project activities such as planning project meetings, scheduling sessions with participants, managing reimbursements, and tracking progress on timelines.
- Fostered positive relationships with museum staff, visitors, external research partners, and community members.
- Worked with internal stakeholders to support the use of visitor feedback and community perspectives to inform the Museum's design and development process.
- Conducted work with attention to the ethical features of research, including contributing to Institutional Review Board activities as needed.

Carnegie Mellon University (Kid Neuro Lab) 2020 - 2022

Software Engineer

- Analyzed experimental data using R, Python, Matlab, Excel VBA, SPSS, and Julia.
- Built and maintained internal databases using Microsoft Access, Filemaker Pro, IndexedDB, MongoDB, Firebase, SQLite, and PostgreSQL.
- Produced data reports from a central database utilizing SQL queries.
- Automated a data cleaning and reporting pipeline for offsite data collection.
- Built and maintained websites using frontend and backend using NodeJS, React, Svelte, and Vanilla Javascript.
- Programmed a broad range of projects in Javascript and Python, with additional experience with mathematica, C++, C#, Java, and Rust.
- Created surveys and consent forms using Qualtrics, Survey Monkey, and Google Forms.

Carnegie Mellon University (Kid Neuro Lab) 2018 - 2022

Research Manager

- Fostered positive relationships with children, parents, peers, and external partners.
- Coordinated subject participation through initial recruitment, scheduling, testing, reimbursement, and follow-up.
- Recruited a diverse subject pool via collaboration with the state of PA, outreach events, and online presence.
- Managed study planning, such as brainstorming, conducting literature reviews, and organizing timelines.

- Supported ongoing project activities, including planning meetings, scheduling, and conducting data collection sessions, and managing participant reimbursements.
- Contributed to Institutional Review Board protocols and ensured that research was conducted ethically.
- Designed positive and engaging educational environments for child participants.
- Automated a data cleaning and reporting pipeline for offsite data collection.
- Created and managed large-scale databases for quantitative and qualitative data.
- Solved large-scale open problems via systematic analysis using modern statistical analysis languages (i.e., R, Python, STAN, Matlab, Julia, SPSS, and Excel VBA).
- Contributed to the dissemination of research findings through developing conference posters, creating infographics, and presenting research to children, general audiences, and peers at international conferences.

University of California, Davis (Infant Cognition Lab)

2016 - 2018

Research Manager

- Helped design best practices recommendations for research, teaching, and policies.
- Developed surveys, observation data sheets, and internal records with cultural sensitivity.
- Ensured compliance with institutional, state, and federal regulations and best practices.
- Created and managed several large databases, which were shared across labs.
- Coordinated efforts between governmental, nonprofit, and interdisciplinary organizations to further shared goals.
- Attended conferences (e.g., ICIS and CDS) to discover the latest findings in the field.
- Reported to grant representatives (NIH, NSF, Gates Foundation, private grants).
- Oversaw dozens of staff members and oversaw the completion of concurrent projects.

California Public Schools (Fairfield-Suisun USD, Woodland USD, and Davis SD) 2012 - 2016

Paraprofessional & Teacher's Assistant

- Led out-of-school programs on science outreach, natural education, and local history.
- Followed established educational plans to ensure each child's academic improvement.
- Worked in schools across the socio-economic spectrum and observed resource disparities and areas of high need.

Skills

Data Management

- Entering and organizing data (Microsoft Access, PostgreSQL, and MongoDB)
- Cleaning, analyzing, and reporting data (Excel, R, Python, Matlab, and others)

Science Communication

- Presenting research to audiences of all ages, educations, and demographics

Research Administration

- Assisting in grant applications, developing research methods, writing IRB protocol, and presenting data
- Managing participants, undergraduate training, research timelines, and finances

Education

University of California, Davis

May 2016

B.A. in Psychology (Development specialization)

Minor in Education