ZUHAIR QURESHI

647-915-3601
zuhair.q01@gmail.com
Toronto, Ontario

Biomedical and Software Engineering student with over 800 hours of scientific research and data analysis experience.

EDUCATION

B.Eng., Integrated Biomedical Engineering & Health Sciences
McMaster University, 1280 Main St W, Hamilton, 2023-2028

EXPERIENCE

Data Science Research Intern
Holland Bloorview Kids Rehabilitation Hospital, Toronto, Ontario, Canada, May 2024 --

- Analyzing biases and missingness in data using measures of statistical significance in Province of Ontario Neurodevelopmental Network (POND) database, with over 3500 participants and 13,000 variables of consideration.
- Predicting clinical impairment in adaptive functioning of over 1,000 children using sociodemographic data.
- Performing quality control on the POND database, reviewing and verifying all 3500+ rows for accounting errors.

Marsden Lab Research Assistant
Li Ka Shing Knowledge Institute, Toronto, Ontario, Canada, Aug 2022 - Aug 2023

- Routinely conducted protocols, primarily RNA extraction and cell culturing.
- Analyzed the lab's unprocessed primary data using Python and Excel (significance testing, plotting, sequence searching).

Okamoto Lab Research Intern

Sinai Health System, Toronto, Ontario, Canada, Jul 2022 - Aug 2022

- Collected and analyzed primary data (mapped neural firing in mice using image analysis software, tested for significance on fluorescence data, extrapolated concentrations with standard curves).
- Worked daily for 7+ hours developing procedural skills in genetic engineering and optogenetics, such as plasmid design, bacterial culturing, cell transfections, & fluorescent spectrometry.

PROJECTS

- ***Characterizing sociodemographic biases in adaptive functioning in a cohort of neurodiverse children***: machine learning research project undertaken at Holland Bloorview using NumPy, Pandas, matplotlib, and statistics libraries.
- ***NoteFlow:*** Natural Language Processing note summarization AI created using SpaCy library and TextRank algorithm
- ***PinPoint***: a 3D-printed anklet integrating an Arduino location tracker and fall detection sensor to be synched with live SMS updates. Coded with NumPy, Plotly, and Pandas Python libraries.

SKILLS

- **Web Development:** HTML, CSS, JavaScript, React, Node.js, Express.js, EJS.
- **Programming Languages:** Python and Java.
- **Data Analysis:** SQL, Excel, Machine Learning, Natural Language Processing, Statistical Modeling.
- **3D Computer-Aided Design (CAD):** AutoDesk Inventor.
- **Laboratory Research:** Sterilization, Pipetting, Cell Culturing, Plasmid Preparation.