



## Description of System Architecture

- 1. Data Collection** - Data was collected through a Qualtrics survey targeting school-based speech-language pathologists in Nassau and Suffolk counties to assess their preparedness to work with interpreters. Participants were recruited using email lists, Facebook groups, and professor connections.
- 2. Data Ingestion** - The Qualtrics survey data was exported as a CSV file, downloaded, and imported into the local development environment using Python in Visual Studio Code. It was then loaded into a Pandas DataFrame for data manipulation and preparation.
- 3. Processing Environment** - Processing was carried out in Visual Studio Code using Python. Libraries used were Pandas for data cleaning, Matplotlib for creating visualizations, and SciPy for statistical analysis, were installed and applied. The setup allowed for data manipulation, cleaning, and the execution of statistical tests, including Chi-Square and One-Way and Two-Way ANOVA.

4. **Data Analysis** - Data analysis involved cleaning and preparing the dataset to correct inconsistencies or missing values. Statistical tests were then conducted, including Chi-Square test for analyzing relationships between categorical variables and ANOVA (both One-Way and Two-Way) for comparing means and evaluating interactions between survey questions. This allowed for further insight into a participants' levels of preparedness.
5. **Version Control** - The cleaned dataset, Python scripts, and analysis results were pushed and committed to a GitHub repository, allowing for version control and easier collaboration.
6. **Presenting Results** - Results uploaded to a presentation in order to present findings.