

Ziliang Huang

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EDUCATION

University of Washington

Seattle, WA

Bachelor of Science (B.S.) - Informatics

Sep 2021 - Jun 2024 (Expected)

Cumulative GPA: 3.94/4.0 (Dean's List)

Relevant Coursework: Databases Design and Modeling, Data Analysis, Data Visualization, Research Methods

SKILLS

Programming: Python(Pandas, Numpy, Scipy, Scikit-learn, Matplotlib), R(dplyr, ggplot, tidyr), JavaScript, SQL

Data Visualization & Database: Tableau, Power BI, ShinyApp, MS SQL Server, MySQL, MongoDB

Tools: Microsoft Excel(Pivot Tables, VLOOKUP, VBA), RStudio, MS Azure, Google Analytics

PROFESSIONAL EXPERIENCE

Washington State Library | Python, Tableau

Seattle, WA

Data Analyst

Oct 2022 – Dec 2022

- Utilized **Python** to conduct data collection and cleansing of 10M+ Washington census entries, enabling flawless data integration and reduction in error rates within a MongoDB framework.
- Developed 10 **data visualization dashboards** to identify an operational challenge and presented resolutions to external stakeholders, allowing the libraries to secure funding effectively.
- Orchestrated the development of a digital equity map to enhance data usability and accessibility, resulting in a **40% reduction in data processing time**.
- Spearheaded the data analysis and reporting process overhaul utilizing Tableau to effectively enhance cross-functional team communications.

PROJECTS

Tech Profiling & Analysis Dashboard | Power BI

- Led the data transformation process with 600+ engineer profiles, standardizing formats, handling outliers, and normalizing data to improve project visualizations.
- Implemented data visualization with Power BI to analyze data professionals' programming language preferences to enhance the understanding of industrial trends and preferences.
- Utilized **DAX** formulas to conduct statistical data analysis, calculating averages from a wide array of salary ranges.

CoffeeShop Database Optimization | SQL

- Directed the design and documentation of physical relational database models, executing snowflake schema for table structure redesign and reindexing, successfully **enhancing query performance by 35%**.
- Enhanced MS SQL Server database performance by 15%** by designing over 50 complex queries, views, and stored procedures, using input parameters, variables, and error-handling for transactional reliability, and applying performance tuning and query plan analysis.
- Developed synthetic transactions in a batch processing environment to validate the performance of stored procedures, effectively handling over 100 million real-time database transactions.

GDP Forecasting | R, ShinyApp

- Created five interactive reports and graphs with RStudio's ggplot, analyzing historical GDP, employment, and consumer data to increase user engagement and clarify complex economic trends.
- Leveraged R to perform comprehensive **data mining** and data cleaning on a massive dataset containing 10 million entries, consolidating data precision for subsequent analysis.
- Improved the quality of output presentations by incorporating HTML and CSS within ShinyApp, providing interactive and customizable features to assist in stakeholder communications.