JOSEPH HEADLEY

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LinkedIn | GitHub

SKILLS

Programming: SQL (Advanced), Python (Intermediate), Git (Intermediate), R (Basic), dbt (Basic)
Software: Tableau (Intermediate), Power BI (Intermediate), ArcGIS Pro (Intermediate), Excel/Google Sheets (Intermediate), RStudio (Basic)
Soft Skills: Excellent at verbal and written communication, problem-solving, and organization
Spoken Languages: English (Native), French (B1), Japanese (N4)

WORK EXPERIENCE

Data Analyst October 2021 – Present
City of Boston Citywide Analytics Team Boston, MA

- Informed decision on hiring of BPS superintendent by identifying most desired candidate qualities from collected survey responses through the use of spaCy and various unsupervised clustering algorithms.
- Assisted Property Management Department in reducing BOS311 graffiti case backlog by 34% in 2 months by developing prioritization score using Arcpy to more efficiently select cases to address.
- Helped inform $4B in City Council budgetary allocations for FY24 and FY25 by working across team verticals to build the Employee Demographics Dashboard, which provided essential demographic statistics about City employees.
- Recreated the Rentsmart Dashboard, in Power BI with improved efficiency, data structure, and visual design to better enable the public to make more informed rental decisions.

Data Analyst Intern (Civic Innovation Corps member) June 2021 – August 2021
City of Boston Citywide Analytics Team Remote

- Supported the design, development, implementation, and maintenance of the Tableau version of the RentSmart dashboard, City Score pothole repair analysis, and Open Data Submission dashboard.
- Assembled, manipulated and formatted data using various software applications such as desktop tools, spreadsheets, statistical software, and graphical presentation tools, specifically SQL and Tableau.

Data Science Intern December 2020 – January 2021
GivingMap Remote

- Created a Python script to pull unemployment data from the Bureau of Labor Statistics API and store it in a SQLite database.
- Used acquired data to create multiple monthly choropleth maps and, subsequently, one time-lapse map of U.S. unemployment rates from Jan. 2019 to Nov. 2020.

EDUCATION

Bachelor of Arts | ***Major: Physics*** Sept. 2017 – May 2021
Williams College Williamstown, MA

PROJECTS

Yelp Data Subset Recommender System May 20, 2021 - May 27, 2021
Williams College, Stat 315: Applied Machine Learning Course Final Project Williamstown, MA

- Created an R Shiny web application that incorporates a combination of NLP Sentiment Analysis and a User Based Collaborative Filtering Recommender System to allow users to make reviews and ratings for Yelp businesses in a data subset in order to receive recommendations based on their own preferences. The web application can be accessed from this link.