

Rachel Shaw

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Results-driven data analyst possessing a strong background in dashboard creation, data integrity, pipeline optimization, advanced data manipulation and analytical techniques used to extract valuable insights from complex datasets. Highly practiced in statistical programming and visualization with research published in peer-reviewed journals. Proven exceptional written and verbal communication, coupled with strong analytical, organizational, and problem-solving skills. Motivated individual equipped with eight years of experience in data science, two master's degrees, a certificate in data analytics, and a genuine passion for learning about the intricacies of visualizations, mathematical analyses, and data technologies.

SKILLS

R
SQL

RMarkdown
Tableau

RShiny
ArcGIS

Git
Excel

PROFESSIONAL EXPERIENCE

Statistical Data Analyst II

Oct 2022-Present

State of Colorado (Department of Public Health and Environment) | Denver, CO

- Lead analyst responsible for designing, maintaining and enhancing internal and public-facing dashboards using Tableau, RShiny, and ArcGIS Pro to ensure accurate and up-to-date visualizations for effective data communication to partners, leadership, the CDC, and public.
- Optimize raw data pipeline in R and SQL to efficiently handle millions of data points, ensuring thorough quality control, comprehensive analysis, and trend modeling at scale.
- Design and implement automated data validation reports to efficiently analyze laboratory results for abnormalities and data discrepancies to ensure integrity and transparency.
- Conduct trend analyses using Bayesian Structural Time Series (BSTS) models to forecast viral trends used in public health action throughout the state.
- Improve team data management protocols by establishing the use of Git source control while verifying the protection of personal identifiable information (PII) follows security and privacy standards, and led team training on new Git workflows.
- Professionally communicate scientific findings in accessible language to tribal nations during regular meetings, facilitating informed community deliberation to guide actionable public health decisions.

Research Assistant / Data Scientist

May 2017-May 2020

Harbor Branch Oceanographic Institute | Fort Pierce, FL

- Conducted research aimed at predicting movement patterns and habitat preferences of migratory marine species.
- Ensured data quality by querying, cleaning, and merging multiple datasets through spreadsheets, cloud databases, and APIs using R, Excel, SAS, and SQL.
- Created statistical data models using R, ArcGIS, and Excel for behavior analysis, including descriptive statistics, time series analysis, linear regression, inferential statistics, spectral analysis, and post hoc testing.
- Presented research findings in front of large audiences of various backgrounds, exhibiting the ability to convert mathematical and scientific findings into accessible everyday language.
- Published analyzed findings in peer-reviewed scientific journals used to facilitate decision-making of government policies and future studies ([Frontiers](#), [Ecology and Evolution](#), [ProQuest](#)).

EDUCATION

Biology, Master of Science

Florida Atlantic University | Boca Raton, FL

Interdisciplinary Studies (Biology, Statistics, and GIS), Master of Science

University of Central Florida | Orlando, FL

PROFESSIONAL CERTIFICATES

Google Data Analytics Professional Certificate | Coursera

Graduate Certificate in Geographic Information Systems (GIS) | Univ. of Central Florida