Rachel Shaw

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Results-driven data scientist processing a strong background in statistics, data manipulation, and advanced analytical techniques used to extract valuable insights from complex datasets. Highly practiced in statistical programming and visualization with research published in peer-reviewed journals, demonstrating exceptional written and verbal communication, coupled with strong analytical, organizational, and problem-solving skills. Motivated individual equipped with five 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 mathematical analyses, data, and data technologies.

SKILLS

R	R Markdown	RShiny	Git
SQL	Tableau	ArcGIS	Excel

PROFESSIONAL EXPERIENCE

Statistical Data Analyst II   Oct 2022-Present
State of Colorado (Department of Public Health and Environment) | Denver, CO

- Maintain and enhance internal and public-facing dashboards utilizing RShiny and ArcGIS Pro to ensure accurate and up-to-date visualizations for effective data communication to our partners, leadership, the CDC, and the public.
- Optimize data pipeline in R and SQL to complete quality control, analysis, and trend modeling on large datasets.
- Design and implement automated data stream to efficiently analyze laboratory results, generating comprehensive heatmaps for publication on the state website.
- Conduct trend analyses using Bayesian Structural Time Series (BSTS) models to forecast viral trends used in public health action throughout the state.
- Establish protocols and conduct team training on GitHub, while verifying the protection of personal identifiable information (PII) follows security and privacy standards.

Science Teacher   Aug 2020-Feb 2022
Lake Brantley High School | Altamonte Springs, FL

- Recorded, analyzed, and interpreted student testing data to identify trends in student comprehension which provided insight on key areas in need of improvement and assessed quality of exam questions.

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   Jan 2018-May 2020
Florida Atlantic University | Boca Raton, FL

Interdisciplinary Studies (Biology, Statistics, and GIS), Master of Science   Aug 2016-Dec 2019
University of Central Florida | Orlando, FL

PROFESSIONAL CERTIFICATES

Google Data Analytics Professional Certificate |Coursera   Awarded Sept 2022
Graduate Certificate in Geographic Information Systems (GIS) | Univ. of Central Florida   Awarded Dec 2017