

# Kay Royo

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## SUMMARY

A self-motivated and strategic Data Scientist with comprehensive analytical and communication skills. An avid learner driven by curiosity who is keen on utilizing technical tools and methods to solve complex problems and develop data-driven insights. Adept at working independently and collaborating with teams. Highly detail-oriented and solution-focused with experience in research, data acquisition, and data analysis. Capable of building long-lasting relationships with clients and colleagues at all organizational levels and driven to explore various methods to provide high-quality work and exceed expectations.

## SKILLS

<b>Programming Languages:</b>	R (Advanced), Python (Advanced), SQL (Advanced)
<b>Web Technologies:</b>	HTML5, CSS, Javascript, jQuery, D3.js, Bootstrap
<b>Database Management:</b>	PostgreSQL, MongoDB, ERD, Relational Databases
<b>Data Visualization:</b>	Tableau, ArcGIS, Plotly, ggplot, Leaflet, Matplotlib, Seaborn
<b>Data Collection &amp; Cleaning:</b>	ETL, Web-Scraping, API, JSON, RegEx
<b>Data Analysis:</b>	Statistical Modeling, Hypothesis Testing, Regression, ANOVA, Time Series Analysis, Exploratory Data Analysis, Text Analysis
<b>Machine Learning:</b>	Neural Networks, Gradient Descent, NLP, NLG, kNN, EM, Classification, Topic Modeling, Model Evaluation, Feature Selection
<b>Libraries:</b>	Pandas, NumPy, Scikit-learn, PyTorch, NLTK, SciPy, Statsmodels, PySpark, caret, forecast,
<b>IDEs:</b>	Visual Studio, RStudio, Jupyter Notebook, JupyterLab
<b>Soft Skills:</b>	Collaboration, Communication, Adaptability, Problem-solving
<b>Other:</b>	Git, GitLab, Github, MS Excel, Databricks, Object-oriented programming, Technical writing, Project management

## EDUCATION AND CERTIFICATIONS

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|---|--------------------|
| <b>University of California – Davis</b><br><i>Master of Science (Statistics –Data Science Concentration)</i>  | 09/2021 – 06/2023  |
| <ul style="list-style-type: none"><li>Coursework: Time Series Analysis, Statistical Machine Learning, Artificial Intelligence, Statistical Data Science, Big Data and High-Performance Statistical Computing, Statistical Research Methods, Multivariate Data Analysis, Probability Theory, Mathematical Statistics, Data &amp; Web Technologies for Data Analysis, Web Science Research Methods, Computational Statistics, Observational Studies</li></ul> |                    |
| <b>ESRI – MOOC</b><br><i>Spatial Data Science Certificate</i>   | 09/ 2020 – 12/2020 |
| <ul style="list-style-type: none"><li>A 6-week online course focused on data engineering and visualization, suitability modeling, pattern detection, space-time pattern mining, and object detection with deep learning.</li></ul>  |                    |
| <b>University of California - Berkeley (Extension)</b><br><i>Data Analytics Certificate</i>   | 02/2020 – 08/2020  |
| <ul style="list-style-type: none"><li>A 24-week intensive program focused on technical skills such as VBA, Python, R, JavaScript, SQL, Tableau, Web development, and Machine Learning</li></ul>   |                    |
| <b>California State University – East Bay</b><br><i>Bachelor of Science (Geoscience)</i>  | 09/2014 – 07/2019  |
| <ul style="list-style-type: none"><li>Research Assistant (Department of Earth and Environmental Sciences)</li><li>Event Coordinator (Earth and Environmental Sciences Club)</li><li>Scholarship Award Recipient (East Bay Mineral Society)</li></ul>  |                    |

## EXPERIENCE

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### Graduate Student Assistant

09/2021 – 12/2022

UC Davis (Department of Biomedical Engineering and Graduate School of Management)

- Provided effective teaching support for business analytics, accounting, and entrepreneurship courses.
- Monitored and evaluated student progress, providing feedback and recommendations for improvement, resulting in increased student engagement and learning outcomes.

### Project Geologist

09/2019 – 06/2021

ATC Group Services LLC

- Evaluated qualitative and quantitative data for potential errors to ensure data quality and integrity using MS Excel.
- Generated and reviewed technical reports to ensure accuracy and consistency, providing high-quality deliverables to clients on time and within project scope.
- Implemented quality control procedures to monitor and ensure the accuracy of reports, resulting in improved data integrity and client satisfaction.
- Provided valuable project management support and achieved cost savings of up to \$1000.
- Collaborated with cross-functional teams to develop and implement environmental site assessments, ensuring compliance with regulatory requirements and project objectives.
- Maintained positive relationships with clients and local regulatory agencies by utilizing effective communication and interpersonal skills, resulting in successful project delivery within project timelines.

### Research Assistant

09/2018 – 11/2020

CSU – East Bay

- Conducted data collection through laboratory analysis, data entry, and quality control checks, ensuring accuracy and completeness of data.

### Geophysical Survey Intern

06/2018 – 07/2018

Canary Islands Volcanological Institute (INVOLCAN) and Geotenerife

- Collaborated with cross-functional teams to develop and implement data acquisition plans, ensuring adherence to project scope and objectives.

## PROJECTS

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### Spotify Top Chart Analysis

03/2023

<https://kayannr.github.io/top-hits/> | <https://github.com/kayannr/top-hits>

Analysis of popular songs across various countries that involves data collection using API, data wrangling, data visualization, exploratory data analysis, topic modeling, feature selection, predictive modeling, and presenting findings in an HTML-based report.

- Methods & Tools: **Python, RegEx, HTML5, NumPy, Pandas, API, Requests, NLTK**

### Sports Statistics

09/2022

<https://github.com/kayannr/sportstats>

Historical Olympics games data analysis that involves data wrangling, data quality assessment, data deduplication, data visualization, hypothesis testing, descriptive and exploratory analysis, and inferential analysis using graphical and statistical methods.

- Methods & Tools: **SQL, Databricks, Python, PandaSQL, Pandas, SQL Window functions**

### Word Wright

12/2020

<https://github.com/howec/wordwright> | <https://devpost.com/software/wordwright>

An interactive web application developed for Devpost Hackathon that includes a story prompt generator based on choice of writing style using a Natural Language Generator model.

- Methods & Tools: **SQL, Python, PyTorch, JavaScript, HTML, CSS, Bootstrap, RegEx, ETL, Web API, React.js, Data Wrangling**

### US Homeless Population

07/2020

<https://mengye22.github.io/US-homelessness/master/templates/index.html>

An analysis of homeless population in the US showcased on an interactive website that involves data collection, data wrangling, ETL, and interactive visualizations.

- Methods & Tools: **Web-scraping, RegEx, ETL, JavaScript, Python, HTML5, CSS, D3.js, Leaflet**
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