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| Keith Sawyer  DATA SCIENCE & ANALYTICS PROFILE | keithsawyer@bellsouth.net • 678-641-8871  Union City, GA • [LinkedIn URL](https://www.linkedin.com/in/keithsawyerb/) |

Professional with in-depth knowledge of data science and progressive experience in software quality assurance practices. Adept at consulting with managers to determine and refine data science objectives. Skilled in transforming data science prototypes and applying appropriate ML algorithms and tools, while ensuring that algorithms generate accurate user recommendations. Instrumental in solving complex problems with multi-layered data sets, as well as optimizing existing machine learning libraries and frameworks. Aptitude for developing ML algorithms to analyze huge volumes of historical data for providing predictions. Capacity for running tests, performing statistical analysis, and interpreting test results. Capable of documenting machine learning processes as well as keeping abreast of developments in machine learning. Articulate communicator with a credible history of cultivating and maintaining positive collaborations with clients, key stakeholders, and senior management to realize organizational goals.

AREAS OF EXPERTISE

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| * Quantitative Data Analysis * Time Series Analysis * Machine Learning Algorithms * ETL * Exploratory Data Analysis | * Probability & Statistics * Linear Algebra * Web/Mobile Applications * Debugging & Optimization * Cross-functional Collaboration | * Python Programming * Data Visualization * Data Modeling & Evaluation * Process Optimization/Automation * SQL Programming |

TECHNICAL PROFICIENCIES

Python **\*** Numpy **\*** Scikit-Learn\*Scipy \* Pandas \* Statsmodels\* Matplotlib \* Seaborn \* TensorFlow \* Keras \* Scala\*Git **\*** SQL Server Management Studio **\*** T-SQL **\*** Jupyter Notebook **\***Time Series Analysis **\*** PySpark **\*** PyCharm \* Intellij Idea **\*** Data ETL **\*** JSON **\*** NotePad ++ **\*** Microsoft Office Suite (Word, Excel, and PowerPoint)

Projects

Project 1: To Airbnb or Not to Airbnb Investment Project

Objectives: 1) To determine if it is better to invest in Airbnb in the USA or in Europe 2) To determine the features that have the greatest impact on Airbnb revenue in the USA and in Europe.

Skills used: ETL, Data Wrangling, Exploratory Data Analysis, Data visualization, Python, Numpy, Scikit Learn, Seaborn, and Pandas libraries.

Outcome: Investors in the European region have the potential to witness a greater revenue, and the features most related to price are the number of people the property accomodates, the number of bedrooms and the number of beds.

Link: <https://github.com/roscobosco2745/SpringboardRepo/blob/main/Airbnb_project/Capstone_Airbnb_US_Europe_Expanded.ipynb>

Project 2: Global Warming: Which Countries are Responsible?

Objectives: 1) To forecast temperatures 35 years into the future given an initial set of temperatures.  
2) To determine if industrialized nations indeed contribute more to global warming than developing nations do.

Skills used: ETL, Data Wrangling, Exploratory Data Analysis, Data visualization, Python, Numpy, Scikit Learn, Seaborn, Statsmodels and Pandas libraries.

The results corroborate the notion that global warming is real; each of the cities experienced at least one degree of Celsius increase over the interval of dates. As for which countries are most responsible, the data suggests that industrialized nations in general are not significantly more responsible than developing nations, although the United states did experience an average temperature increase of 3 degrees Celsius.

Link:

<https://github.com/roscobosco2745/SpringboardRepo/blob/main/Capstone_3_Historical_Temps.ipynb>

CAREER EXPERIENCE

Accenture. – Nashville, TN 2021 – 2023

Delivery Lead/Data Engineer

As a Delivery Lead I was the liaison between my team members and upper management, where I communicated goals and expectations to team members and informed upper management on team progress, predictions and blockers.  As a Data Engineer I used Spark and Scala in performing ETL and EDA techniques to produce UIs for the client.

***Key Accomplishments:***

* **Ensured that all team members successfully completed Quantexa Data Engineer training** on schedule.
* **Efficiently transformed client data using ETL and Exploratory Data Analysis processes** to build anti money laundering tools.
* Learned and implemented Spark and Scala as the main tools for completing data transformation processes.
* Actively maintained team projects for distribution of agenda via SQL database.

PEARSON EDUCATION - Union City, GA 2006 – 2021

Software Quality Assurance Analyst

Leverage proven expertise to ensure math software meets specifications/requirements of client. Implement vast in-field technical exposure to test exercises for accuracy in formulas and solutions. Analyze development data for ensuring that software packages contain no errors. Efficiently executed effective test plans by leveraging Python, the Numpy Library and diverse troubleshooting computer applications.

***Key Accomplishments:***

* **Supported black box testing of mathematical software** by crafting multiple scripts in Python and MATLAB.
* **Accelerated beta, QA, and regression testing of statistics products** by utilizing excel statistics functions.
* **Identified and fixed errors as well as performed regression portion of software development** by collaborating with QA team members.
* **Reduced testing turn-around time on Linear Algebra projects** by implementing the Python Numpy library.

AGS INC. - Duluth, GA 2019 – 2020

Software Quality Assurance Engineer

Implemented and verified IT capabilities to craft test cases for regulated casino games, while utilizing SQL Server and Linux interface for finishing testing cycle, performing regression testing on games cloned from other projects, authenticating integrity of game checksums, and verifying accuracy of documents associated with each game in the project.

***Key Accomplishments:***

* **Ensured timely completion of each project** through close collaboration with developers and SQA team members.
* **Saved AGS between $200,000 and $800,000** by identifying, analyzing, and rectifying significant programming bugs in project pre-release stage.

ADDITIONAL EXPERIENCE

Mathematics Instructor | GEORGIA MILITARY COLLEGE – Fairburn, GA

Mathematics Instructor | SHORTER COLLEGE - Riverdale, GA

I.T. Instructor | COMPUTER-ED INSTITUTE - Marietta, GA

Systems Administrator | COMPUTER-ED INSTITUTE - Marietta, GA

EDUCATION

* Springboard Immersive Data Science and Machine Learning Course
* Emeritus Applied Machine Learning Course

COLUMBIA ENGINEERING

* Master of Science, Applied Mathematics

*UNIVERSITY OF WASHINGTON - Seattle, WA*

* Master of Science, Computer Information Systems

*UNIVERSITY OF PHOENIX - Phoenix, AZ*

* Bachelor of Science, Applied Mathematics

*UNIVERSITY OF FLORIDA - Gainesville, FL*

LICENCES & CERTIFICATIONS

* [PCEP-30-02] PCEP-Certified Entry-Level Python Programmer

*Python Institute*

* [PCAP-31-03] PCAP-Certified Associate in Python Programming

*Python Institute*

* Quantexa Technical Academy

*Quantexa*