

Pius Odhiambo, Data Scientist

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SUMMARY

A highly accomplished Data Scientist with extensive experience in leveraging advanced analytics, machine learning, and data visualization to drive business value. Proven ability to extract, transform, and clean data from diverse sources using SQL and Python (pandas, numpy). Expertise in developing and deploying interactive dashboards with Tableau and Power BI, alongside advanced statistical modeling techniques such as Principal Component Analysis (PCA) and logistic regression for Credit Risk Assessment. Demonstrated success in designing and overseeing complex systems, including Learning Management Systems, and a strong background in cloud-based deployments (Azure). Possesses a Master of Science in Computer Science with a specialization in Artificial Intelligence & Machine Learning.

WORK EXPERIENCE

02/2022 – Present

Senior Data Scientist (Remote)

Nairobi, Kenya

Blue Nile Analytica

- Extracted, aggregated, and consolidated attendance data from multiple sources using SQL queries, creating a unified dataset through data joining and summarization.
- Transformed and cleaned extracted data utilizing Python's pandas and numpy libraries within a Jupyter Notebook for thorough Exploratory Data Analysis and preparation.
- Improved Power BI data pipeline efficiency by automating ETL processes with Power Query Editor and scheduling refreshes for up-to-date dashboard reporting.
- Designed and deployed interactive Tableau dashboards, connecting to SQL databases and Power BI outputs, to visualize key business metrics and trends.
- Directed the overall design and supervised the development of the Learning Management System (<https://app.kiswate.org>), coordinating activities among diverse stakeholder groups.
- Applied Principal Component Analysis (PCA) to simplify student data, pinpointing the primary factors influencing graduation rates.
- Employed a logistic regression classification model to detect and prevent fraudulent transactions, analyzing features like transaction amount, location, frequency, and customer history to classify them as 'fraudulent' or 'legitimate' based on a probability threshold.

05/2024 – 08/2024

Research Data Scientist

Shalimar, FL, USA

DOD HBCU MI 2024 SRIP

- Conducted research on *Drosophila melanogaster*, focusing on its evasion of predators, geographical navigation for egg-laying, and execution of advanced aerial maneuvers using minimal energy.
- Utilized the flybrain lab to investigate the logic functionalities of the fruit fly, informing the design of neural networks to emulate state-of-the-art Unmanned Autonomous Vehicles (UAVs).
- Performed complex data analyses with Excel, SQL, and Python, presenting results through visualizations on Plotly and Power BI dashboards.
- Executed advanced data analysis using NoSQL databases to derive actionable insights.
- Designed neural network circuitry for the fruit fly utilizing flyvision technology.

08/2020 – 01/2022

Sr. Quantitative Analyst

Chicago, IL, USA

Exelon

- Identified and mitigated product vulnerabilities by analyzing inactive energy Power Meters that showed consumption without Service Agreements, proposing and implementing process improvements that eliminated revenue losses.
- Conducted detailed complex data analyses using Excel, SQL, and Python, visualizing findings via Plotly and Power BI dashboards.
- Completed descriptive, prescriptive, and predictive data analyses for price control and payment models leveraging Python.
- Designed a transformative process that converted data into value by effectively managing data, conducting advanced analytics, generating insights, and deploying action plans to achieve desired outcomes.
- Automated various processes using Python, Power Automate, and Windows Task Scheduler.
- Developed Machine Learning algorithms to forecast customer payment risks during the moratorium period.
- Designed and deployed machine learning models to Azure for enhanced data integration.
- Implemented comprehensive database backup restoration and management tasks.
- Executed SQL Server querying, developing necessary database objects (views, stored procedures, functions).
- Performed advanced data analyses using NoSQL databases to bolster customer operations.

05/2019 – 07/2020

Research Assistant, Data Science & Cybersecurity

Bowie, MD, USA

Bowie State University

- Trained undergraduate SURF research students in Data Analytics, Machine Learning, and Visualization tools.
- Assisted students in researching cyber-attacks on SCADA systems and Cyber Threat Intelligence on the darknet.
- Collaborated with a team of student researchers to build and simulate a small SCADA system for a dam.
- Utilized data analytic tools, including Weka, advanced Excel functions, R programming, and Python in the research initiatives.
- Designed and implemented Machine Learning and Artificial Intelligence algorithms within SCADA systems research.
- Developed an innovative algorithm for credit card fraud detection.
- Led a group of 8 developers organized into two teams focused on Data Science and Cybersecurity.

04/2013 – 04/2019

Business / Data Analyst

Alexandria, VA, USA

SecuEdge LLC

- Designed and constructed interactive dashboards and reports to facilitate data-driven decision-making by top management.
- Executed data visualization projects using Tableau, Python, and advanced Excel functions.
- Conducted predictive analysis employing Python to forecast trends.
- Performed SQL scripting to create essential database components, including tables, indexes, views, functions, sequences, and procedures.
- Engineered and deployed analytical models on Azure cloud infrastructure.
- Implemented comprehensive database backup restoration and management tasks.
- Executed SQL Server querying while developing necessary database objects (views, stored procedures, functions).
- Managed an end-to-end data migration project utilizing SQL Server Management Studio and SSIS.
- Conducted advanced data analyses using MongoDB and other NoSQL databases to enhance customer operations.

EDUCATION

08/2019 – 05/2024	Bowie State University Master of Science, Computer Science (Artificial Intelligence & Machine Learning)	Bowie, MD, USA
06/2022 – 03/2023	University of Texas at Austin Postgraduate Program, Artificial Intelligence & Machine Learning (PGP AIML)	Austin, TX, USA
05/2014 – 05/2017	University of Maryland Global Campus Master of Science, Information Technology (Database Systems Technology)	Adelphi, MD, USA
10/1996 – 10/2000	Kenyatta University Bachelor of Science, Education (Mathematics / Physics)	Nairobi, Kenya

SKILLS

Advanced Excel functions	Python
SQL scripting	Tableau
Power BI	R
C++	Plotly
Oracle Data Modeller	ETL tools
Natural Language Processing (NLP) Libraries	Machine Learning Algorithms
Oracle Database Administration	Data Mining
Project Management	Software Development
Communication	Leadership
Mentoring	Cloud Computing Infrastructures
Collaborative Teamwork	Problem Solving
Alteryx	Artificial Intelligence

LANGUAGES

English (Fluent)

Swahili (Fluent)
