LUKEMAN

A person in a sweater

Description automatically generated with low confidence

FRIMPONG

DATA SCIENTIST/

FULL-STACK DEVELOPER

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Experienced Data Scientist and full-stack developer with over 7 years of proven proficiency spanning the domains of banking and information technology. My data secience career has been characterized by the consistent integration of extensive expertise in machine learning, predictive modeling, and data analytics to effectively address complex business challenges. I possess a specialized skill set that center around leveraging tools such as Python, SQL, Scikit-learn, TensorFlow, Spark, Hadoop, and Apache Spark to architect and implement robust analytical solutions.

Throughout my career, I have demonstrated a mastery of advanced regression techniques and data-driven methodologies, leading the charge on initiatives that yield operational optimizations, stimulate organizational growth, and enhance data-informed decision-making. My fervor lies in the conversion of intricate data sets into coherent, actionable, and influential insights.

As a dedicated professional, I am resolutely committed to pushing the frontiers of data science, thereby fostering a climate of business innovation and achieving the highest standards of excellence.

**Work experience**

**Data Science Trainer Feb 2023 - Present***Tecvinson AB*

* Train aspiring data scientists through real-life tasks, ensuring job readiness and practical understanding.
* Develop curriculum focused on machine learning, data preprocessing, visualization, and predictive modeling.
* Facilitate hands-on projects to simulate actual industry challenges, enhancing students' problem-solving skills.
* Collaborate with industry partners to align training with current market demands, ensuring relevant skill development.

**Data Scientist/Developer Jan 2022 – Jan 2023***Iconicli*

* Collaborated with software engineers to integrate machine learning capabilities into the Iconicli web application, leveraging mathematical constructs such as vector spaces for feature representation and techniques like gradient descent for optimization.
* Utilized natural language processing (NLP) to analyze customer feedback, informing marketing strategies and product improvements.
* Assisted in developing a recommendation engine that connected models with advertising agencies, utilizing collaborative filtering and matrix factorization. Employed Singular Value Decomposition (SVD) and Alternating Least Squares (ALS) as the core mathematical techniques, paired with statistical methods like Pearson Correlation and Cosine Similarity.
* Built a user churn prediction model, using logistic regression and decision trees. Used mathematical techniques like regularization and statistical methods such as ROC Curve Analysis and Chi-Squared Test for feature importance.
* Designed an anomaly detection system to identify and flag inappropriate content, utilizing statistical methods like Z-score normalization and IQR-based outlier detection.
* Utilized Azure services to build a sentiment analysis pipeline for social media data, enabling proactive response to user feedback. Applied mathematical techniques such as Word Embeddings and Vector Space Models, along with statistical methods like Naive Bayes Classifier and Text Frequency-Inverse Document Frequency (TF-IDF).
* Applied statistical metrics to evaluate the impact of marketing campaigns on user engagement and conversion rates, using methods like A/B testing, ANOVA, and regression analysis.
* Analyzed user behavior data to refine email marketing campaigns, achieving a 20% increase in open rates. Applied statistical methods like cluster analysis, t-tests, and multivariate regression to analyze user behavior and segment the audience.

**Data Scientist Apr 2015 – Feb 2018**

*Societe Generale Ghana*

***Logistics Optimization using Machine Learning***

* Developed an optimization model using machine learning algorithm to minimize shipping costs while meeting delivery deadlines.
* Employed mathematical techniques such as Linear Programming and Integer Programming, coupled with statistical methods like Time Series Analysis and Regression Analysis.
* Implemented a predictive model using gradient boosting to forecast the number of customer visits for each branch. This model was trained to recognize patterns based on historical data and seasonal trends, thereby predicting future customer footfall.

***Customer Segmentation and Targeting***

* Created a customer segmentation pipeline for the Marketing Department, combining demographic and behavioral data. Utilized mathematical methods like Euclidean Distance and Silhouette Coefficient, and statistical techniques such as Principal Component Analysis (PCA) and Chi-Squared Test.
* Deployed a K-means clustering algorithm to identify distinct customer segments, enabling personalized marketing campaigns increase in conversion rates.

***Predictive Credit Scoring System***

* Designed and deployed a credit scoring system in the Credit Department leveraging gradient boosting techniques and methods like Gradient Descent and Regularization. Incorporated statistical techniques including Logistic Regression, ROC Curve Analysis, and Kolmogorov-Smirnov Test.
* Incorporated features like historical payment behavior, income data, and economic indicators to enhance model robustness and achieve a 90% accuracy rate.

***Customer Churn Prediction and Retention***

* Designed and deployed churn prediction model using classification techniques, enabling personalized retention strategies. Reduced customer churn by 20%.
* Assisted in designing and implementing a centralized data platform, integrating data from various banking channels like mobile, online, and in-branch. This platform provided a 360-degree view of each customer, enabling personalized banking experiences.
* Collaborated with departmental leaders on a comprehensive research initiative, determining that the primary driver for customer churn was the absence of advanced digital facilities.

**Education**

**Software development** 2020-2022*Change Maker Educations*

**Business administration (M.Sc)** 2018 – 2020  
*Karlstad Universitet*

**Business Information Technology (B.Sc)** 2011 – 2014  
*Kwame Nkrumah University of science and Technology*

**Language**

* English

**Certifications**

* Next.js & React - The Complete Guide (Maximilian
* Microsft Azure(DP-100)
* IBM Data Science Professional Certificate
* Microsoft Data Engineer Associate

**Hobbies**

* I enjoy playing video games, biking, reading books, walking, playing ping pong.