

Jacob Appia

Bloomington, Illinois

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EDUCATION

Masters of Science, Applied Statistics

Illinois State University

Jan. 2020 – May 2022

Normal, Illinois

Relevant Courses : Statistical Learning and Data Mining, Regression Analysis, Design of Experiments, Database Management

Bachelor of Science, Actuarial Science

Kwame Nkrumah University of Science and Technology

Sept. 2014 – May 2018

Kumasi, Ghana

TECHNICAL SKILLS

Tools and Languages : Python (Pandas), R (Tidyverse), SQL, JavaScript, Power BI, Tableau, MS Excel, R Shiny

Software : R Studio, Jupyter Notebook, JIRA, Git, Github

Soft Skills : Machine Learning, Model Deployment, Data Analysis and Visualization

WORK EXPERIENCE

Data Scientist

WAfric Energy Solutions LLC

Oct 2022 – Present

Spring, Texas

- Conduct detailed industry research, analysis and draft reports of insights for management.
- Develop demand forecast models to help the engineering team design the appropriate plant and equipment sizes for a planned petrochemical complex.

Graduate Teaching Assistant

Illinois State University

Jan 2020 – May 2022

Normal, Illinois

- Tutored 90+ students in College Algebra and Mathematical Reasoning for the Maths' department.
- Collaborated with other graduate teaching assistants to determine students' weakness and needs and also provide academic support which successfully improved students performance in the undergraduate math courses.

Associate Software Developer

Omnile Solutions Limited

March 2018 - Dec 2019

Kumasi, Ghana

- Identified patterns and trends in historic sales data to build an inventory forecasting application and enhance clients' businesses by making sure enough products are in stock to avoid losing potential sales.
- Collaborated with team members in using softwares such as SQL and PowerBI to develop a dashboard application to serve the needs of Microfinances companies in Kumasi and this helped to significantly decrease the amount of bad debts.

Data Analyst

KNUST-LISA (Laboratory for Interdisciplinary Statistical Analysis)

Sept 2018 - Aug 2019

Kumasi, Ghana

- Performed statistical data analysis for researchers by leveraging tools like Excel (Pivot table mostly), SPSS and R Statistical Software in cleaning the data, performing Exploratory Data Analysis (EDA) and building suitable models.
- Organized weekly Regression Analysis tutorial sessions to tutor 100+ undergraduate students for the Maths' department.

PERSONAL PROJECTS

Impact of a New E-commerce Web Page on Conversion Rate | [Code Link](#)

- Performed an A/B testing analysis by leveraging the Chi-Square test for independence and assess the impact of a new ecommerce web page on the users conversion rate compared to the existing web page.
- Developed the necessary hypothesis and provided stakeholders with recommendations based on the result.

Customers Retention Analysis | [Code Link](#)

- Conducted a time-based cohort and retention analysis in python to examine how many customers are staying and how many are leaving in a given cohort over time.

Students Apartments Rent Prediction | [Code Link](#) | [App Link](#)

- Developed a script to extract apartments data from the students' apartment website to predict the cost of rent.
- Implemented 10-folds cross-validation in R to train XGBoost model and Random Forest model.
- Designed and deployed a R Shiny application which implements the final model and provides real-time predictions.

Retail Sales Prediction | [Code Link](#)

- Collaborated with teammate to predict the number of unique products purchased in shops of a company at different locations.
- Trained predictive models using XGBoost and multiple linear regression on the cleaned data.
- Drafted a report detailing my findings for the stakeholders.

HONORS AND AWARDS

Illinois State University Predictive Analytics Competition - Second Place

May 2021