Andrews Acheampong

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EDUCATION

Kumasi, Ghana

Bachelor of Science in Statistics KNUST GPA= Department of Statistics and Actuarial Science Jan 2020 - Aug 2024

ACADEMIC RESEARCH EXPERIENCE

Undergraduate Research

Predictive Analytics for Kidney Disease Progression

(link)

Nov 2022 - Present

Oct 2024 - Present

Jun 2024 - Present

Nov 2023 - Apr 2024

Sep 2023 - Nov 2023

Jul 2022 - Oct 2022

Sep 2024

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- * Study Focus: Developed a predictive model for Chronic Kidney Disease (CKD) using logistic regression.
- * **Key Variables:** Investigated the impact of hemoglobin, serum creatinine, hypertension, and random blood glucose on CKD risk.
- * Model Performance: Achieved 97% accuracy and a Kappa value of 0.94 through 10-fold cross-validation.
- * Significance: Findings highlight the importance of these predictors in CKD diagnosis and management.

CERTIFICATIONS & PROFESSIONAL DEVELOPMENT

<u>m</u> ALX Online

Software Engineering
* Specialization in Back End Development

<u>iii</u> Udemy Online

Learn Bioinformatics from Scratch

* Theory and Practical

<u>fii</u> Udemy Online

 $\begin{array}{c} \textit{Applied Statistical Modelling for Data Analysis in } R \\ * \textit{Base R language} \end{array}$

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Basic Molecular Biology Module 1
* Basic Science

1 Udemy Online

 $egin{array}{ll} Data \ Science \ with \ R \ & {
m tidyverse} \end{array}$

<u>university Information Technology Services (KNUST)</u>

Kumasi, Ghana

 $Systems,\ Networking\ and,\ Cybersecurity\ Boot-Camp\\ *\ Bash$

<u>iii</u> Udacity Online

PyData Ghana
Accra, Ghana

PyData Ghana Data Science Bootcamp

* Python language

Feb 2022 - Apr 2022

Rhinovirus Classification Web App | Web application (link)

- · **Objective:** To streamline the classification of rhinoviruses by developing a web application that integrates the rhinotypeR package, making genotype assignment faster and more reproducible.
- · **Purpose:** By leveraging Python as the backend and Flask as the framework, the platform offers researchers an efficient and accessible tool to conduct rhinovirus classification.

Seroincidence of Salmonella Typhi Iinfections | Analysis (link)

- · **Objective:** Establish the seroincidence of Salmonella Typhi infections among individuals aged 1-25 years in the Asante Akyem district, Ghana.
- · Focus: Determine seroincidence of Salmonella Typhi using anti-HlyE IgA and IgG antibodies

Evaluating Pentadesma for Diabetic Wound Healing. | Analysis (link)

- · **Objective:** The study aims to investigate the topical efficacy of Pentadesma butyracea seed powder on wound healing in diabetic rats.
- · Focus: It seeks to assess the potential of Pentadesma butyracea as a therapeutic agent for improving diabetic wound management.
- · **Ultimate Goal:** The long-term goal is to identify an effective treatment that can enhance wound healing in diabetic patients.

Salmonella Typhi Detection in Environmental Water | Analysis (link)

- · **Objective:** The study aimed to identify environmental factors influencing the detection of Salmonella Typhi in water samples.
- Methods: Data visualization, summary statistics, and logistic regression modeling were used to analyze associations.
- · **Findings:** The analysis revealed links between water physicochemical parameters (e.g., temperature, pH), rainfall, and wastewater characteristics, shedding light on conditions favorable for Salmonella Typhi presence.

Automated Data Extraction from YarnPlaza Using Selenium | Scripting (link)

- · Objective: Utilized Selenium, a web automation tool, to extract data from the yarnplaza.com website.
- · Data Collected: Gathered key information including Brand, Name, Price, Needle Size, and Composition of products.
- Data Organization: The extracted data was structured into a DataFrame and saved as a CSV file named "Data Gathering1.csv."

Bible Block Web App | Web application (link)

- · **Objective:** Develop a user-friendly platform for exploring, reading, and actively engaging with the Bible's content.
- · Purpose: It was a requirement for the successful completion of the ALX Software Engineering program.

AirBnB Clone Project | command-line interface (CLI) application (link)

- · Objective: Develop a command interpreter to manage AirBnB objects.
- · **Operations:** Includes creating new objects, retrieving existing ones, updating attributes, and destroying objects.
- · Functionality: Allows for performing operations on objects to simulate AirBnB functionalities.

ALX Simple Shell Team Project | Unix shell application (link)

- · **Objective:** Create a simple shell named hish that mimics the Bash shell as part of an ALX collaboration project.
- Functionality: hish is a UNIX command language interpreter, which reads commands from either a file or standard input and executes them.

m Kwame Nkrumah University of Science and Technology (KNUST)

Kumasi, Ghana Oct 2024 – Present

 $Research\ and\ Teaching\ Assistant$

Department of Statistics and Actuarial Science

Assisted in research and teaching statistics-related courses for undergraduate students.

<u>m</u> University Hospital (KNUST)

Kumasi, Ghana Oct 2022 – Nov 2022

Data Analyst - Internship Department of Records

Collected, organized, and analyzed hospital records data to support reporting and decision-making. Assisted in cleaning and maintaining large datasets, ensuring accuracy and consistency across patient records. Generated data-driven reports and visualizations for hospital management to optimize operational efficiency. Provided insights into trends in patient admissions and discharges to aid in capacity planning.

Computing Skills

Languages: Python, R, SQL, JavaScript, C, HTML, CSS.

Technologies: O git, Unix Shell, LaTeX, DevOps

REFERENCES

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