

SAMUEL NUAMAH-AMOABENG

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Education

University of Rochester

Master of Science in Data Science

Aug. 2022 – Dec. 2023

Rochester, NY

University of Ghana

Bachelor of Arts in Economics and Statistics

GPA: 3.70 out of 4.0, First Class Honors

Sep. 2016 – July 2020

Accra, Ghana

Experience

Center for Integrated Research Computing (CIRC), University of Rochester

April 2023 – December 2023

Data Scientist & Scientific Programmer

Rochester, NY, USA

- Conducted a comprehensive analysis of a sizable SLURM dataset comprising over 15 million observations using **SAS** and **Python** to achieve data understanding, improve data quality through cleaning and preprocessing, perform statistical analysis for knowledge discovery, and support informed decision-making.
- Utilized **SAS** programming in a Linux cluster to preprocess and cleanse the data, ensuring data quality and accuracy.
- Developed a program to assess utilization and optimization of the University's high-performance computing environment, leveraging data science techniques.
- Extracted and analyzed job-related data from the cluster to identify improvement areas based on resource allocation and user demand, collaborated with a supervisor to develop data-driven recommendations for enhancing computing infrastructure efficiency.

Goergen Institute of Data Science (GIDS), University of Rochester

November 2022 – December 2023

Student Assistant

Rochester, NY, USA

- Developed and implemented an automated admission decision program using **Python** that processed multiple reviewers' Excel files, resulting in quick and error-free decisions for over 500 master's degree applicants, and saved the program's coordinator significant time and effort.

- Managed students and alumni information in both online and physical files, ensuring data accuracy and confidentiality.

PyData Ghana

March 2022 – April 2022

Data Science Intern

Accra, Ghana

- Completed an intensive training program in Data Science that covered various topics such as Web Scraping using BeautifulSoup and Selenium, Data Processing using Pandas, NumPy and Matplotlib, and Data Visualization using Matplotlib and Seaborn.
- Developed presentation skills by delivering a presentation on the training topic.
- Applied the knowledge gained using **Python** to explore techniques for cleaning, manipulating, analyzing and visualizing real-world datasets as part of a final project for the training program.

Social Security and National Insurance Trust - Risk and Quality Dept.

October 2020 – August 2021

Risk Analyst Assistant

Accra, Ghana

- Reviewed the previous five reports and research conducted by the department to gain insights and knowledge about the field.
- Assisted in the development of a Credit Risk Model by performing data cleaning and analysis using **Excel** and **R** to ensure accuracy of data before submission to management for review.
- Acquired knowledge and a comprehensive understanding of Risk Management practices and competencies through active participation in various tasks and projects.
- Contributed to the Need Analysis for the Acquisition of an Asset and Liability Management System (ALMS) project by providing valuable insights and suggestions to the team.

Projects

Tools for Data Science Final Project | *Python, R*

December 2022

- Performed data analysis and machine learning modeling in **Python** to build SVM and Random Forest models on Titanic and beans datasets, and attained accuracy scores of 78% and 92% respectively.
- Performed data analysis and machine learning modeling in **R** to build SVM and Logistic Regression models on heart and wheat datasets, and attained accuracy scores of 90% and 82% respectively.

Hate Speech in NBA Project | *Python, Twitter API*

October 2022 – December 2022

- In collaboration with a teammate, used **Python** and Twitter API to gather tweets from NBA fans on Twitter.
- Employed FP Growth data mining algorithm to extract the 50 most disliked athletes and gathered their demographic and performance data.
- Analyzed, explored, and visualized the collected data to identify trends, patterns, and relevant insights.
- Project underwent a rigorous review process and was accepted for publication in a reputable academic journal.

Technical Skills

Languages: Python, R, STATA, SQL, SAS, Power BI, Tableau, Spark

Proficient in Microsoft Word, Excel, PowerPoint, Box Cloud, Minitab

Technologies/Frameworks: Linux, GitHub, Databricks, AWS

Additional Information

Certifications, Memberships and Publications

- Programming for Everybody (Getting Started with Python), Coursera, 2021
- Python Data Structures, Coursera, 2021
- PyData Data Science Bootcamp, Python Ghana, 2022
- Member, Blacks in Technology Foundation, May 2023 - present
- Edinam Kofi Klutse, **Samuel Nuamah-Amoabeng**, Hanjia Lyu, and Jiebo Luo, "Dismantling Hate: Understanding Hate Speech Trends Against NBA Athletes," *International Conference on Social Computing, Behavioral-Cultural Modeling Prediction and Behavior Representation in Modeling and Simulation (SBP-BRiMS)*, Pittsburgh, September 2023.

The Shrewd Foundation

January 2022 – Present

Organizing Secretary

- Coordinated and facilitated the annual "STREETMAS Outreach" event, which provided street children with breakfast and basic necessities during the Christmas season.
- Partnered with ZESUSA farms to provide food and clothing to homeless individuals in Accra, contributing to efforts to alleviate poverty and improve living conditions.