Samuel Nuamah-Amoabeng

585-290-3581 • snuamah44@gmail.com

EDUCATION

University of Rochester — **Rochester, NY**
Master of Science, Data Science — *Aug. 2022 – Dec. 2023*

University of Ghana — **Accra, Ghana**
Bachelor of Arts, Economics and Statistics — *Sep. 2016 – Jul. 2020*
GPA: 3.70 out of 4.0, First Class Honors

EXPERIENCE

ENGIE Energy Marketing NA, INC, Renewable Portfolio Management — **Houston, TX**
Quantitative Analyst — *June 2024 - Present*

- Developed and implemented MISO Random Forest and SPP XGBoost models using **Python, SQL** and **AWS (S3, EC2, Lambda, Athena)** to forecast DALMP, ensuring scalable cloud deployment and identifying areas for performance refinement.
- Applied SPP methodology across multiple nodes and enhanced MISO model adaptability, leveraging **AWS, Python, and SQL** to scale forecasting solutions effectively.
- Conducted data-driven market analysis using **Python, SQL, and data visualization tools** to support commercial decision-making and optimize trading strategies.
- Improved analytical efficiency by optimizing **data pipelines and forecasting workflows** using **SQL, Python (building a Class) and AWS**, reducing manual intervention.
- Developed a strong understanding of **power market dynamics**, transitioning from theoretical learning to practical application through hands-on analysis and proactive problem-solving.

Center for Integrated Research Computing (CIRC), University of Rochester — **Rochester, NY**
Data Scientist & Scientific Programmer — *Nov. 2022 – Dec. 2023*

- 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.
- 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.

PyData Ghana — **Accra, Ghana**
Data Science Intern — *Mar. 2022 – Apr. 2022*

- Completed an intensive training program in Data Science that covered various topics such as Web Scraping using Beautiful Soup 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. — **Accra, Ghana**
Risk Analyst Assistant — *Oct. 2020 – Aug. 2021*

- 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

Hate Speech in NBA Project | Python, Twitter API — **Oct. 2022 – Dec. 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

- **Techniques:** Descriptive Analytics (Hypothesis Testing, Data Visualization, Statistical Testing), Machine Learning (Clustering/Segmentation, Regression, Classification, Deep Learning)
- **Tools**: R, Python, SQL, Cloud (AWS), BI (Power BI, Tableau), Office Suite, STATA, GitHub

ADDITIONAL INFORMATION

Certifications, Memberships and Publications

- 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.