

# Jason Ngwa

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## Education

Bachelor of Science in Computer Science & Biochemistry

May 2026

Honors & Awards: Clarkson Ignite Presidential Scholar, Honors program

GPA: 4.0

## Research Experience

Computational Chemistry Researcher

May 2024 - Present

Clarkson University • Potsdam, NY

- Explored the application of computational frameworks like **Keras** and **RDKit** to train models for recognizing IUPAC names in organic chemistry to generate corresponding molecular structures.

Bioinformatics Research Assistant

May 2024 - Present

Clarkson University • Potsdam, NY

- Programmed regression models using **sci-kit learn** to predict the effect of various environmental changes on bacterial growth
- Partnered with mathematics graduate students to discover equations that model the relationship between space and bacteria growth using **MATLAB**.

## Work Experience

Media Mentor

September 2023 - Present

Clarkson University • Potsdam, NY

- Worked on the **front-end** in collaboration with colleagues to develop a marketing webpage for the Clarkson MakerSpace.
- Employed proficiency in Adobe Creative Suite for **graphic design**, **photo editing**, and **video editing** to enhance visual content.

Tech Intern/Instructor

June 2023 - August 2023

Lavner Education • Saint Paul, MN

- Improved quick learning and flexibility by resolving computer **hardware** and **software** issues for seamless operations while honing adaptability by mastering new weekly curricula
- Developed IT curriculum by integrating **Python**, **Java**, **C++**, **web design**, and **game development** projects into the curriculum to foster well-rounded student skills.

Bioinformatics intern

December 2021 - March 2022

MRC • Fajara, The Gambia

- Utilized **numpy**, **pandas**, and **seaborn** to analyze and visualize large datasets of malaria infection rates in the Gambia
- Worked with peer student interns and scientific officers to create accurate geographical plots mapping malaria disease spread using **Plotly**.

## Projects

Service Website

December 2023 - Present

- Collaborated with a team of 8 to develop a fully functional website for households to find service providers in The Gambia using **HTML**, **CSS**, **React**, and **Laravel**
- Orchestrated back-end development, including **database optimization** (MySQL), **caching** (Redis), and **performance tuning** (OPcache).

Soccer Player Attribute Analysis

February 2022

- **Conducted** an extensive analysis on a FIFA player dataset comprising over 250,000 entries, utilizing R libraries **tidyverse** and **ggpubr**, to illustrate the correlation between trainable attributes and player success.

## Skills/Interests

Technical Skills C++, R, Scikit Learn, Keras, RDKit, MATLAB, Data Analysis, Data Visualization

Certifications Machine Learning A-Z (Udemy), Python for Data Science and Machine Learning Bootcamp (Udemy)