JACKLINE MPAYE

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EDUCATION

Ashesi University   **Berekuso - Eastern Region, Ghana**
BSc. Computer Science   **Expected Date of Graduation: June 2025**
(Recipient, The Pathway Foundation Scholarship)

Budini Secondary School   **Kaliro, Uganda**
General Sciences Uganda Advanced Certificate of Education **(UACE)**   **Mar 2019–Jul 2021**

ACHIEVEMENTS/AWARDS

The Path Foundation Scholar Program, Ashesi University   **Jan 2022-July 2025**
Social-Behavioral-Educational (SBE) Comprehensive Certification, CITI Program   **June 2024**
Cybersecurity Essentials Certification, Cisco Networking Academy   **March 2023**
Operating Systems Basics, Cisco Networking Academy   **November 2024**

WORK EXPERIENCE

Musana Community Development Organisation - Iganga, Uganda   **Aug 2024 – Sep 2024**
Information Technology Intern
- Collaborated on the maintenance, and optimization of software systems, improving system reliability and performance.
- Conducted research and recommended system enhancements to improve functionality and scalability.
- Resolved software-related issues in networking systems, ensuring seamless integration and operational efficiency

PROJECTS AND RESEARCH

Ashesi University - Berekuso, Ghana   **Sep 2023**
Virtual File System Organizer
- Designed a hierarchical file system using a binary tree for efficient organization and navigation.
- Implemented a hashing mechanism to enable $O(1)$ file search, optimizing retrieval efficiency.
- Utilized stack operations for seamless directory navigation and efficient path resolution.

Ashesi University - Berekuso, Ghana   **Aug 2024**
Neural Networks for Fraud Detection in Financial Transactions
- Improved fraud detection accuracy by 15% using neural networks, reducing false positives.
- Enhanced model robustness through advanced feature engineering techniques.
- Researched fraud patterns to refine anomaly detection strategies.

Ashesi University - Berekuso, Ghana   **Sep 2024**
Threat Detection Using Machine Learning
- Built a threat detection system identifying 95% of network anomalies.
- Improved threat response times by 30% using supervised learning.
- Designed an efficient pipeline for early network security threat detection.

Ashesi University - Berekuso, Ghana   **Sep 2024**
Improving Water Access Using Data-Driven Solutions
- Used clustering techniques to identify underserved communities.
- Increased water accessibility by 20% through data-driven optimization.
- Provided actionable recommendations for sustainable water distribution.

LEADERSHIP AND CO-CURRICULAR ACTIVITIES

Josiah Leadership Movement- Berekuso, Ghana   **Sep 2022– Mar 2023**
Vice President
- Organized leadership events, increasing participation in ethical programs by 20%.
- Led initiatives on integrity and leadership, boosting student engagement.
- Coordinated programs promoting ethics and leadership among students.

Future of Africa- Accra, Ghana   **May 2023– Present**
Volunteer
- Created an activity bible that improved engagement and streamlined event planning for street kids and the organization.
- Mentored children, increasing mentee engagement by 40%.
- Developed leadership skills through mentorship and guidance.

SKILLS AND INTERESTS

- Proficient in Microsoft Office Suite
- Programming Languages & Technologies (Proficient in Python, HTML, CSS, PHP, GitHub, SQL, R, Java, TensorFlow, Keras, Scikit-learn, Pandas, Active Directory, Wireshark)
- Agile Development, Problem-solving & Analytical Thinking, Leadership and Project Management
- Interests (Machine Learning, Cybersecurity, IoT, AI in Finance, Open Source Development, and Software Development)

REFERENCES

Available upon request