RICHARD KASONGO

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EDUCATION

Bethune-Cookman University   Daytona Beach, FL
B.S. Computer Science, Mathematics   May 2027
3.94 GPA
Honors/ Awards: Presidential Scholar, Honors Student
Relevant Coursework: Data Structures & Algorithms, Databases, Computer Programming 1&2 *(in java),* Calculus 1&2, Linear Algebra.

SKILLS

Languages: Python, Java, C#, Swift, Objective-C, C++, JavaScript, MATLAB, SQL, HTML and CSS.

Technologies and Software: Xcode, GIT, MySQL Workbench, Visual Studio, VS Code, Jupyter Notebook, Arduino, Tableau, React, iOS, Microsoft OS.

PROFESSIONAL EXPERIENCE

Microsoft   Redmond, WA
Software Engineering Intern   May 2025- August 2025
- Developed and deployed a synthetic probe for Microsoft planner targeting worldwide service rings, automating the creation, validation, and deletion of rosters, plans, buckets, and tasks to monitor end-to-end feature health through Microsoft Graph V3 API with readiness for V4.
- Simulated multi-user interactions for users using C# and the .NET Framework to validate role-based permissions, failover behavior, and error handling during roster lifecycle operations.
- Integrated monitoring, alerting and automated cleanup workflows using Microsoft internal tools, Git, and production pipelines, enabling real-time health alerts when metrics dropped and ensuring probe-created artifacts were removed.

US Fish and WildLife Service   Remote
Software Engineering Intern   February 2025- May 2025
- Developed a Python automation pipeline using pandas, openpyxl, and OpenAI's API to transform raw multi-source ecological data into fully consolidated, detail-preserving descriptions, eliminating manual data processing and shortening the process by 80%.
- Integrated AI-driven text consolidation logic that preserved 100% of numerical, geographical, and ecological details, replacing prior summarization routines to meet scientific information retention requirements.

Bethune-Cookman University   Daytona Beach, FL
Mathematics Teaching Assistant   January 2024- May 2025
- Provided personalized math tutoring to 50-80 college students, effectively improving their academic performance and contributing to significant grade enhancements through tailored instruction and targeted feedback.
- Cultivated a supportive and interactive learning environment that encouraged student engagement and inquiry, resulting in 100% positive feedback and empowering students to explore complex concepts and gain confidence in their mathematical abilities.
- Utilized various teaching methodologies and technologies to cater to diverse learning styles, enhancing the overall effectiveness of the tutoring sessions.

U.S CMS PURSUE - Fermilab   Batavia, IL
Software Research Intern   May 2024- August 2024
- Made software improvements to the Tracer Log Viewer, an interactive data visualization tool aimed at enhancing the understanding of CMS software algorithms to users. .
- Reduced setup time by 50% and increased security via a **Python** server with customizable port settings, avoiding the need to enable local file reading on web browser, and enabling dynamic JSON data loading for tracer files using **JavaScript APIs**.
- Increased user satisfaction by 40% through UI enhancements, including interactive controls, improved visualization, created status reports, and directory-wide file management using **HTML and CSS.**
- Trained in **C++, Machine Learning, PyROOT, ROOT, Unix Shell, Git, Ubuntu, Jupyter Notebook**, and other essential tools for Particle Physics data analysis, gaining a comprehensive understanding of these technologies to drive advanced research and development.

PERSONAL PPROJECTS

Finance-Tracker(Github)   October 2024
- Developed a personal finance tracking app using **Objective-C** and **SwiftUI**, allowing users to log expenses across customizable categories, providing an organized and user-friendly budgeting solution.
- Implemented data visualization features that summarize user inputs into 3 interactive graph types (bar, pie, line) to help users easily identify spending trends and make informed financial decisions.
- Optimized Objective-C logic to handle and categorize inputs quickly, enhancing the app's responsiveness and delivering real-time insights.

Ocean Rescue (ORE) (Github)   January 2024 – April 2024
- Developed a strategic game design and procedural generation with **Python** and implemented adaptive **AI** for game difficulty and conducted rigorous play-testing, resulting in a 35% increase in player engagement and an average rating of 4.8/5.
- Reduced game loading times by 40% through code optimization and efficient asset management, enhancing the overall user experience
- Integrated multi-player functionality, enabling real-time player interactions and fostering a competitive and engaging community.

Portfolio Website Development (Github)   December 2023
- Built a dynamic, responsive portfolio website using **JavaScript, HTML, and CSS**, achieving a 50% increase in visitor engagement and a 40% decrease in bounce rate through optimized user interactions and page load speed..
- Implemented a mobile-first, cross-platform design, ensuring compatibility across devices and contributing to a 30% increase in mobile traffic by delivering optimal user experience on both desktop and mobile.

INVOLVEMENTS

IEEE Bethune Cookman Robotics | Ecocar Electric Vehicle Challenge, BCU-ERAU