ASHER CHAKUPA

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EDUCATION

Ashesi University, Accra, Ghana   **Expected August 2024**
Bachelor of Science in Computer Engineering
Relevant Courses: Intermediate Computer Programming, Networks and Data Communications, AI Robotics, Data Structures and Algorithms, Control Systems, Multivariable Calculus, Linear Algebra, Embedded Systems, Digital Systems Design, Circuits and Electronics

SKILLS

Languages: Python, C/C++ (*Intermediate*), MATLAB/Simulink, R, JAVA (*Intermediate*), HTML, CSS, VHDL, SQL
Softwares: Proteus, LabView, Vivado, Tableau, PowerBI, Linux, Microsoft Office Suite (Word, Excel,Teams), Google Workspace

RELEVANT EXPERIENCE

Netro Electronics - Electronics Intern, Harare, Zimbabwe   **July 2023 – August 2023**
- Managed projects in the R&D department, implementing EasyEDA for efficient development of custom Arduino-compatible boards for Netro Electronics, resulting in a 30% reduction in production errors.
- Implemented Surface Mounting Technology and pinhole soldering techniques to mount components MALKON boards and breathed life in them using C programming language resulting in an average of 10 MALKON boards daily.

Impact Hub - Computer Engineer Intern, Harare, Zimbabwe   **June 2023 – July 2023**
- Utilised Excel and R to collaborate cross-functionally, delivering data-driven reports and insights that enabled informed decision-making, optimising resource allocation by 10% and fostering a more targeted approach toward achieving SDGs.
- Fostered tech education by leading a coding boot camp, resulting in a 40% surge in student enrollment empowering over 30 children with cutting-edge skills in robotics and web development with simplified concepts of HTML and CSS.

PROJECTS

Cell-Tower Battery Security System Development, Ashesi University   **October 2023 – Present**
- Collaborating in a team of three to develop an advanced cell-tower battery security system in Africa, integrating Computer Vision, Machine Learning, and mechanical principles to proactively combat the escalating challenge of battery theft.
- Utilizing SOLIDWORKS for meticulous model design and SIMULINK for the simulation of mechanical responses, enabling accurate analysis of AI-controlled actuators' data collection for enhanced system functionality.

Enhanced Driver Assistance using Computer Vision, Ashesi University   **October 2023 – December 2023**
- Implemented driver assistance technology using NVIDIA Jetson Nano, integrating YOLOv8 and OpenCV for accurate detection of vehicles, humans, and road signs and Google Text-to-Speech API for real-time actionable insights for road safety.
- Operated in a Debian OS, a Linux environment, utilizing Python programming for code development. Leveraged Google Collab for efficient model training, contributing to improved driver assistance functionalities.

Incubator Automation, Netro Electronics   **July 2023 – August 2023**
- Collaborated in a solution to mitigate the challenges posed by frequent power cuts in Zimbabwe, ensuring uninterrupted operation of automated incubators, resulting in a 5% increase in hatch rates compared to non-automated incubators.
- Elevated product standards through rigorous unit testing and error checks, ensuring the seamless integration of components and functionality, elevating the company's standards in electronic design and manufacturing through high product performance.

LEADERSHIP

Investments Head, Ashesi Business Club   **January 2022 – December 2022**
- Promoted financial literacy through simulated stock market competition fostering a culture of informed investment and wealth management among students, resulting in 60% of students actively managing real portfolios.
- Facilitated Ashesi Entrepreneurship Centre to host a monthly series of impactful panel discussions, successfully hosting five seasoned portfolio managers to impart knowledge of technical and fundamental analysis and risk management.

Vice-President, Ashesi International Student Association   **January 2022 – December 2022**
- Organized events fostering inclusivity and diversity within a community of over 200 international students, increasing event attendance by 20% increase, boosting student`s mental health as indicated by feedback survey responses.
- Facilitated communication between the Office of Diversity and international scholars, emphasizing the well-being of students and led initiatives to support the welfare and integration of students from diverse backgrounds.

HONOURS

Dean`s List   **2021 – 2022**
African Business Concept Challenge, Ashesi University   **March 2022 – April 2022**
MasterCard Foundation Scholarship, Ashesi University   **September 2020 – Present**