

Freda-Marie Beecham

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EDUCATION

Ashesi University

BSc. Computer Science

Berekuso, Eastern Region

Jan 2022 – Jun 2025

ACHIEVEMENTS/AWARDS

3rd Place, Nestlé Live Business Case

Nov 2024

***Dean's List Honors**, Ashesi University

Jan 2022 – Dec 2024

WORK EXPERIENCE

AmaliTech Services GmbH -East Legon

Jun 2023 – Aug 2023

Software Developer Intern

- Implemented PA Authentication functions as a member of a collaborative Scrum team for a hospital booking management system, using Python Django REST Framework, in a 6-week span
- Collaborated on the full-stack design and development of an Access Key Manager API, implementing secure key management functionalities, ensuring safe and reliable access management for users

PROJECTS AND RESEARCH

Applied Capstone Project

Sep 2024 – May 2025

Enhancing Ride-Hailing Passenger Safety and Comfort for Women in Ghana Using AI

- Conducted user surveys and prototype testing over 2 months to gather insights on safety concerns and evaluate the usability of AI-powered features designed to protect female passengers
- Built a mobile safety app using on-device AI to detect early warning signs of danger during rides through geofencing, audio analysis, and facial recognition, with offline alerts for low-connectivity environments

IoT-Based Smart Environment Monitoring & Control System

Dec 2024

- Developed and deployed a smart sensor network using ESP32-WROOM modules to monitor temperature, humidity, and light intensity in indoor and outdoor environments, enabling real-time environmental tracking
- Integrated machine learning to predict future temperature trends based on location, LDR values, humidity, and time of day, allowing for enhanced energy efficiency

Emotion Recognition in Ghanaian Dialects

Jul 2024 – Aug 2024

- Built a deep learning model to identify emotions in speech, using Tensorflow, to enhance the effectiveness of emotion recognition in 5 local dialects

Research on the Impact of Online Learning on Ghanaian Students

Sep 2020 – Feb 2021

- Conducted quantitative and qualitative research to analyze the extent to which online learning has transformed the educational experiences of Ghanaian high school students in the Greater Accra Region

CO-CURRICULAR ACTIVITIES

Ashesi Student Council Academic Committee, Ashesi University

Jan 2024 – Dec 2024

Head of the Course Representative System

- Developed a comprehensive Excel-based feedback system to monitor course representative reports
- Managed a team of 15 students to gather feedback from the student body, facilitating effective decision-making and improvements in course designs

Academic Peer Tutoring Program, Ashesi University

Feb 2023 – Dec 2024

Programming Peer Tutor

- Led 10 sessions on Data Structures and Algorithms, covering key concepts such as arrays, linked lists, and trees, which significantly improved students' understanding and application of these concepts
- Aided 30 students in mastering the concepts of inheritance, polymorphism and encapsulation in Java through targeted instruction and hands-on practice on a weekly basis

SKILLS

- Programming Languages: C++, CSS, HTML, Java, JavaScript, Kotlin, PHP, Python, MySQL, R
- Frameworks, Libraries, and Tools: Android Studio, Django Rest Framework, Flutter, React.js, Tensorflow
- Extensive experience with Microsoft 365
- Exceptionally skilled in Adobe Premiere Pro, Photoshop, Illustrator, Squarespace, Wix and Canva

REFERENCES

Available upon request

*Dean's List Honors – Awarded to students with GPA of 3.5 and above