

Christabel Acquaye

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Location: College Park, Maryland

INTERESTS

Machine Learning/Natural Language Programming

EDUCATION

University of Maryland

Ph.D in Computer Science

Fall 2022 – Present

College Park, USA

Kwame Nkrumah University of Science and Technology (KNUST)

Bachelor of Science in Computer Engineering; First Class Honors

Sep. 2015 — July 2019

Kumasi, Ghana

- Awarded the Sam Korankye Ankrah Excellent Students Award, Class of 2019.
- Awarded the Best Graduating Female Computer Engineering Student, Class of 2019.
- Awarded the Jerome Jackson Scholarship for highly motivated students in STEM, 2018

RESEARCH/TEACHING EXPERIENCE

Teaching Assistant

Department of Computer Science, University of Maryland

Fall 2022 – Present

College Park, USA

- TA for CMSC 131

Faculty Assistant

Faculty of Engineering and Informatics, Academic City

May. 2021 – Aug 2022

Accra, Ghana

- Conducted and analysed primary research including conducting interviews and surveys.
- Assisted professors and other lecturers in the department with various administrative tasks including editing and proofreading prepared research materials.
- Supplemented teaching by organizing tutorial sessions for students in the CS related courses and Engineering.
- Ensured lecturer's are well abreast with the students' level of understanding by assessing quizzes, lab reports, and exams.
- Developed course plans to be used during the semester and proctoring different examinations, tests and other assignments to ensure rubrics set for examining students is followed judiciously.

Research Assistant

Karaagro AI

Aug. 2021 – May 2022

Accra, Ghana

- Identified patterns and trends in data by assisting in data preparation, analysis, visualisation and modelling
- Conducted pertinent research and building researched models into projects being implemented.
- Validated and tested model predictions by annotating images used in ensuring high accuracy levels of models.

Teaching and Research Assistant

Department of Computer Engineering, KNUST

Sept. 2019 – June 2020

Kumasi, Ghana

- Researched, experimented, and tested different toll solutions to determine the appropriate technology considering demographic constraints.
- Provided materials necessary for submission of paper into a journal.
- Empowered students by assisting in the development of activity manuals for students to use during lab activities.
- Motivated and preserved student's interest in studies by organizing online tutorials during the COVID-19 period.

EXPERIENCE

AI Team Lead

July 2019 – Aug 2022

Emerging Labs

Accra, Ghana

- Built chat bots to facilitate efficient conversations on insights drawn from data while automating processes.
- Organized, managing and delegating tasks to the AI team culminating in the completion of tasks relevant to the ELiTE Virtual Counsellor project.
- Empowered instructors by designing curriculum on AI used in tutoring students during ELiTE Camps.

Computer Engineering Intern

June 2018 – July 2018

Electricity Company of Ghana, ECG

Accra, Ghana

- Guaranteed plain sailing transition into new IT software systems by upskilling ECG staff on the use of software used in operations.
- Ensured smooth running of the company's operations by diagnosing, troubleshooting and resolving computer hardware related issues.
- Revamped IT software systems by researching and installing tailor-made ECG software and Operating Systems.
- Supervised interns in the IT department by coordinating reports and delegating tasks assigned to interns.

Computer Engineering Intern

June 2017 – July 2017

Ghana-India Kofi Annan Centre of Excellence in ICT(AITI)

Accra, Ghana

- Ensured smooth running of the company's operations by diagnosing, troubleshooting and resolving computer hardware related issues.
- Ensured events organized at the center run without disruptions by assisting in the organization of the auditorium and classrooms during different tech organized talks and meetings as well as organized short courses by the center for different professionals.
- Represented the AITI at a conference by developing and presenting a Linux Infrared Air conditioner controller (LIRC) using raspberry pi project.

COMPETENCES

- Good written and oral communication skills.
- Ability to conduct and analyse research.
- Effective scheduling and planning skills
- Good team player

Programming Languages, Frameworks, and Databases: Python, Embedded C, Java, Apex, ReactJS, React Native, Tensorflow, Dialog Flow, SQL (Postgres)

Development and Design Tools: Visual Studio Code, Code Composer Studio, Atmel Studio, Arduino, Eagle, Octave, SPSS, Proteus, Fusion, Adobe XD, Figma, GIT

Operating Systems: Ubuntu, Windows, Linux Mint, Debian

Languages: English(Proficient), Ga(Fluent), French(Beginner)

RESEARCH / PROJECTS

J. Amegadzie, D. Kanubala, K. Cobbina and **C. Acquaye**, "State and Future Prospects of Artificial Intelligence (AI) in Ghana", in 27th SMART-iSTEAMS-IEEE International Multidisciplinary Conference, 2021, pp. 1-10.

B Kommey, **C Acquaye**, and T A Abeka. GhanaToll: Barrier-Free RFID Toll Collection and Management System for Ghana. International Journal of Computer Applications 176(27):22-29, June 2020.

ELiTE Virtual Counsellor

2020 – Present

Emerging Labs

- Tools and languages: Python, Apex, Dialogflow

Final Project: Multi-Fish Species Classifier

2021

Runmila AI Institute and AI Commons

- Tools and languages: Python, Google Colab

Brain Tumor Detector

2021

Applied SVM in CNN to train model.

- Tools and languages: Python, Google Colab

KNUST, Department of Social Sciences: Exam Time Table Scheduler <i>Used Genetic Algorithms with feedback from exams officer to generate suitable time table</i>	2020
• Tools and languages: Python, VSCode	
Erranda Service App <i>Service app that posts on-demand errands for students to bid and run the errands for a fee.</i>	2019
• Tools and languages: React Native, React JS	
Automatic Monograph Assessor <i>Used NLP to extrapolate text meaning; SVM to classify bad and good essays given input metrics</i>	2018
• Tools and languages: Firestore, MongoDB, Swift	
Kumasi Hive Incubator: Smart Farm Assistant <i>IoT system that monitors and reports farm conditions to improve yield.</i>	2018
• Tools and languages: React JS, Arduino	

OTHER CERTIFICATIONS

Runmila AI Institute and AI Commons <i>Certificate in Machine Learning and Deep Learning</i>	Accra, Ghana Feb. 2021 - July 2021
Kumasi Hive Incubator <i>Certificate in Internet of Things</i>	Kumasi, Ghana Aug. 2018 – Oct. 2018
Ghana-India Kofi Annan Centre of Excellence in ICT <i>Certificate in Database Management and Administration</i>	Accra, Ghana June 2017 – July 2017
Ghana-India Kofi Annan Centre of Excellence in ICT <i>Certificate in Java Programming</i>	Accra, Ghana June 2016 – July 2016

COMMUNITY/VOLUNTEER WORKS

Tutor and Mentor <i>Emerging Leaders in Technology and Engineering, ELiTE</i>	2016 - Present Accra, Ghana
• Instigating interest in STEM by tutoring and mentoring students in programming, electronics, and ML.	
Scholarship Application Reviewer for the Grace Hopper Celebration <i>Anita B. Org</i>	2020 – 2022 Online
• Reviewed scholarship applications by different students across the world to attend the GHC 2021 Conference.	
• Reviewed scholarship applications by different female faculty across the world to attend the GHC 2020 and 2022 Conference.	
Conference volunteer <i>27th SMART-iSTEAMS-IEEE Multidisciplinary Conference, Academic City</i>	2021 Accra, Ghana
• Collected information of participants prior to conference in order to make relevant provisions to accommodate COVID-19 protocols.	
• Served as information desk representative during conference.	
Mentor, General Secretary and Tutor <i>Faculty of Electrical and Computer Engineering Students, ACES</i>	2017- 2020 Kumasi, Ghana
• Empowered students by providing tuition and direction in programming, electronics, and navigating engineering.	
• Coordinated meetings with executives and organised workshops and networking events for students with potential employers.	
• Organized and documented the department's electronics club meetings proceedings, submitted reports and letters within and outside the institution.	
Academic Mentor and Music Head <i>Royal House Students and Associates, KNUST,</i>	2018 - 2020 Kumasi, Ghana
• Organized academic workshops and provided counselling and guidance for students.	

- Managed and provided music training for musical performances during church services and events in and out of campus.

Video team volunteer

2019

Debian Project's developer conference, DebConf

Curitiba, Brazil

- Served as the video director controlling videos recorded and transmitted through the live video stream.

Director for Children's Ministry

2014-2019

Dominion Outreach Church

Accra, Ghana

- Organised and coordinated weekly Bible lessons.
- Developed lesson plans and organised training for other Sunday school teachers to equip them with the relevant skills necessary for teaching.
- Developed and organised plays and skits during church events.

Ambassador for General Electric during the Predix Challenge

2017

Kwame Nkrumah University of Science and Technology

Accra, Ghana

- Coordinated conversations between GE, the contestants and KNUST Students
- Organised and mobilised students to support contestants from KNUST.

REFERENCES

**Available upon request*