

John Kwame Dunyo

Email: johnkdunyo@gmail.com

Phone: +233543460633

Location: Ghana

[GitHub](#)

[LinkedIn](#)

EDUCATION

Kwame Nkrumah University of Science and Technology (KNUST), Kumasi, Ghana

Aug. 2017 – Nov. 2021

Major: Bachelor of Science in Computer Engineering (**First class honors**)

Undergraduate capstone project: Design and Implementation of an Occupancy Based Fan Speed Regulator

Relevant coursework: Embedded systems, Linear Electronics, Digital Signal Processing, Computer Vision and Robotics, Classical Control Systems, Data Structures and Algorithms, and Software Engineering

RESEARCH EXPERIENCE

Research Assistant	Dept. of Computer Engineering	KNUST	June 2021 – Present
<ul style="list-style-type: none">Assisted a lecturer to research on an optimal edge detection algorithm in computer vision applicationsAssisted a lecturer to research and develop an optimized room occupancy detection model to run on resource constrained computing embedded devices			
Keywords: Computer Vision and Robotics, Digital Signal Processing, MATLAB and Linear Electronics			

Lead Researcher	The FarmSens Project	Kumasi Hive, Ghana	April 2019 - Present
<ul style="list-style-type: none">Researched on the design of a novel embedded portable device to help farmers accurately test their soils at a cheaper cost.Led team in designing the software infrastructures for the successful deployment of the FarmSens' sensors			
Keywords: Embedded Systems, IoT, Product Development, Linear Electronics, Digital Signal Processing			

WORK EXPERIENCE

Network Operating Center Engineer	Bluetown Ghana Ltd	Accra	Oct. 2021 - Present
<ul style="list-style-type: none">Performed level 1 incident and request resolution via phone, e-mail, and internal ticketing system.Conducted technical configuration and onboarding at tier 1 level, including WAN and LAN connectivity, routers, APs and security			
Keywords: IP, Computer Networking, Network Security, Zabbix, Jira, Cambium Tools			

Lead Developer	Moreplex Company Limited	Kumasi	June 2021 - Present
<ul style="list-style-type: none">Led developers' team to design, code, test and analyze the company's landing, e-commerce and skills learning applications.Developed a machine learning model to recommend products to customers based on their skin problems			
Keywords: Software development, HTML5/CSS3, JavaScript, React, Nodejs, Machine learning, AWS, Git			

Junior Data Scientist	Magmarkd Private Limited, India	(Remote)	April 2020 - Jan. 2021
<ul style="list-style-type: none">Designed and implemented data modelling processes and predictive models to extract data from existing business database and then visualized it with insights on a newly developed web applicationProposed solutions to improve system efficiencies and reduce overall project costs			
Keywords: Team management, Python, Flask, SQL, PowerBI			

Networking Intern	University Information and Tech. Service (UITS)	KNUST	June 2019 – July 2019
<ul style="list-style-type: none">Gained problem solving skills by troubleshooting and fixing IT problemsAssisted with installation and updating of network system improvements to ensure security at all levels			
Keywords: Troubleshooting, Network Security, IP addressing			

PROJECTS

Room Occupancy Detection	Undergraduate Capstone project KNUST	Oct. 2020 – July 2021
<ul style="list-style-type: none">Trained and optimized an OpenCV model to detect room occupancy using HOG and linear SVM.Applied the model to automatically control the speed of a fan based on room temperature and occupancy.The model was optimized to run on a resource constrained edge computing device – a raspberry pi 3 MCU.		
Keywords: Computer Vision, Algorithm Optimization, IoT, Embedded systems,		

FarmSens: Smart Soil Testing Device (Team Lead)	Kumasi Hive	Apr. 2019 – Present
<ul style="list-style-type: none">Led team to design, build and test FarmSens' soil sensors for in situ soil testing.Design and built a mobile app to interface sensors to provide real-time soil test data and extension advise to farmers.Managed team's day-to-day operations and performance		
Keywords: HTML5/CSS3, React, Firebase, Python, IoT, Embedded Electronics, Digital Signal Processing		

ACHIEVEMENT AND AWARDS

<ul style="list-style-type: none">Awarded a Resolution Fellow, The Resolution Group, USA	June 2021
<ul style="list-style-type: none">Awarded MasterCard Foundation Scholarship in KNUST	Aug. 2017 – Nov. 2021
<ul style="list-style-type: none">Recognized as an excellent graduating student, St. Paul's Senior High School	January 2017

LEADERSHIP EXPERIENCE AND VOLUNTEERISM

<ul style="list-style-type: none">Technical Mentor, Women's Haven Africa, Kumasi, Ghana	Apr. 2021 – Present
<ul style="list-style-type: none">Spearheaded live streaming of church activities, Christ the King Cath., Akatsi, Ghana	July 2020 – Jan. 2021
<ul style="list-style-type: none">Student Ambassador, IBM Digital Nation Africa, KNUST, Ghana	Apr. 2019 – Jan. 2021
<ul style="list-style-type: none">Spearheaded a Tech and Innovation Bootcamp, Akatsi, Ghana	July 2019 – Aug. 2019
<ul style="list-style-type: none">Tutored Mathematics for JHS student, Holy Child School, Akatsi, Ghana	June 2016 – July 2017

SKILLS AND INTEREST

Programming languages: Python, C, and JavaScript

Proficient in using Microsoft Office Suite (Word, Excel, PowerPoint), PowerBI, MATLAB, AWS

Data Management: SQL, MongoDB, Firebase

PUBLICATIONS

B. Kommey, **J. K. Dunyo**, E. T. Tchao and A. S. Agbemenu, 2021. A Comparative Study of the Common Edge Detection Operators in Digital Image Processing. Journal of Research in Engineering and Applied Sciences (JREA), Volume 6, Issue 4, October 2021