

# CURRICULUM VITA

## **ERIC, NANA TAKYI**

**POSTAL ADDRESS:** BUILDING AND ROAD  
RESEARCH INSTITUTE, POST OFFICE BOX UP  
40, KUMASI

**PHONE:** +233549389371 / +23350500328

**EMAIL:** [nanatakieric@gmail.com](mailto:nanatakieric@gmail.com)

**GITHUB:** <https://github.com/erictakyi>

### PERSONAL PROFILE

Date of Birth:	11/03/1996
Place of Birth:	Kintampo
Home Town:	Kintampo
Nationality:	Ghana

### EDUCATION BACKGROUND

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August, 2018 - September, 2022

**Kwame Nkrumah University of Science and Technology (K.N.U.S.T). B.Sc.  
(Hons) Telecommunications Engineering.**

Second Class (Upper Division)

Thesis Title: DIGITAL RIGHTS MANAGEMENT PROTECTED  
DYNAMIC ADAPTIVE HTTP STREAMING

Thesis Supervisor: Dr. Kwame Opuni Boachie Agyekum

2013 – 2016

WENCHI METHODIST SENIOR HIGH SCHOOL

WASSCE Certificate (General Science)

NSMQ Candidate, Wenchi Methodist Senior High School (2016)

2010 – 2013

CHRISTIAN EDUCATION COMPLEX JUNIOR HIGH SCHOOL

Basic Education Certificate Examination (BECE), JUNE 2013

2004 – 2010

**CHRISTIAN EDUCATION COMPLEX PRIMARY SCHOOL**

**AREAS OF EXPERTISE**

- Communication Engineering
- Data Analysis
- Software Development
- Web Application Development
- Cyber Security
- Cloud Computing

**PERSONAL SKILLS**

- Self-motivated, analytical and able to work under pressure
- Good verbal and written communication skills
- Good interpersonal relationship
- Team player with good time management skills
- Taking instructions from superiors

# **SKILLS IN SOFTWARE ENGINEERING, DATABASE AND CYBERSECURITY**

## **Programming Languages:**

- Proficient in Python, Java, Dart, Php.
- Familiar with languages such as JavaScript, C++, Mat lab, CSS.

## **Web Development:**

- Strong experience in front-end development using HTML, CSS, and JavaScript.
- Proficient in creating backend, responsive and interactive web applications.
- Familiar with CSS frameworks like Bootstrap and Tailwind CSS.

## **Software Development:**

- Flutter: Proficient in utilizing Flutter for mobile app development. Skilled in developing cross-platform applications with a focus on smooth and expressive UIs.
- Testing of code(unit testing and integration testing)
- Deploying mobile app to production environment

## **Cybersecurity:**

- Vulnerability Analysis
- Reconnaissance and Information Gathering
- Web Application Security
- Penetration Testing
- Network Security
- IDS, Firewalls and Honeypots

## **Data Analysis:**

- Familiar in using python modules like matplotlib, numpy and pandas to read , analyze and convert data to visual formats(Data modelling).

## **Frameworks and Libraries for Software and Web development:**

- React.js: Experience in building modern, scalable web applications using React.js.

- Flutter: Proficient in using Flutter for mobile app development.
- Django: Extensive experience in developing web applications using Django framework.
- Flet: Familiarity with flet for creating lightweight and efficient mobile applications.
- Code igniter: Proficient in building server-side applications using code igniter.
- Git for version control

### **Cybersecurity Tools and Software:**

- Aircrack –ng
- Wireshark
- NMAP
- ARP Spoof
- Bettercap
- XRP
- Zen map
- Metasploit
- Nexpose
- Reaver
- Veil
- BeEF
- Maltego
- Whois lookup
- SQL map
- Zap
- Ms Office
- Power Bi
- HFSS
- ADS
- Code editors(vs code, pycharm, android studio)

### **Database Management:**

- SQL: Understanding of SQL and experience in working with various relational databases.
- Firebase: For creating backend services for mobile applications

- Supabase: proficient using supabase for providing postgres for projects with real time functionality, database backups ,extensions and more

## **RESEARCH AND PROJECT EXPERIENCE**

- Involved in the design of a Microprocessor (Course project)
- Design and simulation of a Wilkinson's Power Divider
- Edge intelligence for computation for Next generation Networks.
- Research into WIFI impersonation security using Machine learning(ML)
- Design and simulation of a Yagi-Uda patch-antenna for 2 GHz operating frequency
- Design and simulation of a Log-periodic 500MHz antenna.

## **WORK EXPERIENCE**

### **National service person**

#### **CSIR-Building and Road Research Institute of Ghana**

November 2022 – November 2023

Responsibilities:

- Application and System software development for the various divisions in CSIR-Building and Road research Institute.
- Analyzing and modifying existing software as well as designing, constructing and testing end –user applications that meet user needs.
- Perform maintenance and software integrations for existing systems
- Identify and assess new technologies prior to implementation.
- Assisting in updating the CSIR-Building and Road Research Institute's website regularly.
- Offer technical support to company staff and troubleshoot computer and network problems
- Taking inventories of the institutes IT infrastructure

### **Technical officer (internship)**

#### **Ghana Broadcasting Cooperation (GBC) Kintampo**

At Ghana Broadcasting Cooperation (GBC) Kintampo, OCTOBER –  
DECEMBER, 2021

- Switching on and off the gen set when needed especially when there is power outage
- Propagation of signals from studio to PIE transmitter, transmitter antenna and finally to the antenna on the mast
- Clearing errors from the FM transmitter
- Performed phase monitoring

**ACHIEVEMENTS/AWARDS**

- Development of CSIR-Building and road research institute artisan mobile app with the objective to monitor the performance of trained workers and also increase their maximum reached to the end users
- Development of CSIR-Building and road research institute attendance management application with the objective to streamline and automate the process of tracking and managing attendance for staffs.
- Created food delivery application with the aim to facilitate the convenient and efficient ordering and delivery of food from local restaurants to custom.
- Developed school management web application with the aim to streamline administrative tasks and enhance communication within and outside educational institutions.
- Developed clone of Netflix web application
- Developed online library web app with the aim to provide users with access to a diverse range of digital resources including books, articles, etc.

## PUBLICATIONS AND PRESENTATIONS

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- ERIC, NANA TAKYI, Yacoba, Oduro Yeboah, Stephen Sarfo and Dr. Kwame Opuni Boachie Agyekum  
R Ahmed “Microstrip oscillator design for 5G applications” 2022.
- ERIC, NANA TAKYI, ‘‘Internet of Vehicles and VANET’’,  
Department of Telecommunications Engineering, KNUST. May  
2021

## REFEREES

- Dr. Nii Harmon (CSIR):  
CSIR-Building and Road Research Institute  
Tel: 0558094851

- Mr. Raphael Opoku (CSIR):  
CSIR-Building and Road Research Institute  
Tel: 0244041190
- Mr. Adu Osei (CSIR):  
CSIR-Building and Road Research Institute  
Tel: 0276101325
- Mr. Okyere Ismael  
CSIR-Building and Road Research Institute  
Tel: 0249009798



