

# Nathanael Alimsiwen Akowan

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## Summary

Certified in AI Career Essentials (ALX) with a strong foundation in Information Technology and software engineering. Experienced in full stack development, IoT, and mentoring peers. Proven track record of leading technical projects and contributing to innovative solutions.

## EDUCATION

### **University for Development Studies**

**2019-2023**

Tamale, Ghana, Northern Region Box TL 1350.

### **BSc. Information Technology**

Cumulative GPA: 4.28/5.00

### **Kadjebi-Asato Senior High School**

**2015 – Jul 2018**

Kadjebi, Volta Region, Ghana.

Program General Arts (\*WASSCE)

## ACHIEVEMENTS

Successfully mentored and trained a group of peers and friends in web development and IoT, resulting in improved technical skills and increased project contributions.

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## AWARDS/CERTIFICATIONS

AI Career Essentials (ALX certification).

**2024**

Software Engineering (ALX certification).

**2023**

B.Sc. Information Technology, University for Development Studies certification, Ghana.

**2023**

Hackathon Committee Chair, C.K Tedam University of Technology and Applied Sciences.

**2022/2023**

Hackathon Committee Member, C.K Tedam University of Technology and Applied Sciences.

**2021/2022**

C.K Tedam IOT Campus Ambassador, IOT Network Hub Africa.

**2022/2023**

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## WORK EXPERIENCE / LEADERSHIP

### **IT support Officer, Spring Field Academy Complex, Tamale, Northern Region, Ghana**

**Jan,2025-December.**

- Trouble shooting technical issues, Data entry and printing of documents such as register, learning materials, assessment instruments.
- Installation of electronic devices and managing school inventory.
- Preparing and analyzing data on Excel.

### **Facilitator, Greater Heights International School, Tamale, Ghana**

**Nov,2024**

- Teaching and preparing materials and resources for subject lessons.
- Monitoring of classroom and group activities

### **National Service, Records officer – Tamale, Northern, Ghana**

**November 2023 - July 2024**

### **Office of the Registrar of Companies (ORC)**

- Filling and recording of business certificates.

- Maintain daily records of transactions

### **Hackathon Chair – Navrongo, Upper East Ghana.**

**Jun 2022 – 2023**

- Supervised semester-based hackathon activities for the IT society.
- Prepared budgets for semester activities.
- Invited technical experts for tech talks and career guidance.

### **Software Developer, Intern – Navivesel, Tamale, Northern Region, Ghana. 2021/2022**

- Teaching various subjects and ensuring pupils understand.
- Development of new softwares for clients.

### **VOLUNTEERING**

#### **IOT (internet of things) Campus ambassador – Navrongo, Upper East, Ghana. 2022-2023**

- Planned and organized weekly programs for campus project activities.
- Guided members in Arduino week celebrations and problem-solving.
- Facilitated meetup session activities.

### **PROJECTS AND RESEARCH**

#### **URL shortener**

**2021**

- A web base application that helps individuals to shorten their URLs for free.

#### **Photo Editor**

**2021**

- A web application using Python Flask backend for basic image manipulation tasks such as cropping, format conversion, thumbnail conversion and black and conversion.

#### **Electronic record and Filing System. A case study of SCIS (CKT-UTAS),**

**Sept, 2023**

- Developed an electronic filing system for SCIS (CKT-UTAS) to replace manual filing systems, enabling various administrative functionalities.

#### **Cloud Smart dustbin**

**Feb,**

**2022**

- Built a smart dustbin with automatic lid operation, temperature and humidity monitoring + geolocation tracking and waste level monitoring, activities and triggers can be monitored on Arduino cloud.

#### **Blindo**

**October, 2022.**

- An IoT/Arduino project providing a platform for visually impaired users to access audio recordings of lessons using a braille-like IOT hardware.

#### **Smart Compost Monitoring System (IoT)**

**2024**

- Built IoT-based system with ESP32, DHT22, soil moisture & pH sensors for real-time compost monitoring.
- Enabled cloud dashboard (Arduino cloud) with live alerts on temperature, moisture, and pH deviations.
- Reduced manual effort, improved compost quality, and to support smallholder farmers with actionable insights.

### **COURSE WORKS**

Data Structures, Software Engineering, Embedded systems and programming, Discrete Mathematics, Linear algebra, statistics and probability.

### **SKILLS**

- Languages (Proficient in Python,C, C++, SQL, HTML, CSS, PHP, Dart, bash, and JavaScript).

- Graphic designing and UI/UX using software such Adobe XD, Adobe photoshop.
- Tools (Anaconda, MS Office suite, Git).
- Technologies, Platforms and Frameworks (flutter, Riverpod, Laravel, Django, flask, bootstrap, jQuery, Nextjs, ReactJS, Redux, NumPy, pandas, Matplotlib, Azure, Heroku, GitHub, Git, Firebase, Deepseek, Kimi, Gemini, ChatGPT, Chatpdf, Julius.ai, miro, Todoist, Trello, UIZard).
- **Others:** Public speaking, Beginner proficiency in French

## **REFERENCES**

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Available upon request

## **Research/Project Interest**

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- IoT (internet of things), task automation, AI and Machine learning.
- Software engineering

**Languages-** Buli, Likpanpan, Akan, English, French

**\*WASSCE** – West African Senior School Certificate Examination