

Cape Coast,
Ghana.
UTC±00

Lawrence Ephrim

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Work Experience

Snr. Software Engineer (Remote)	Amplio, USA/Ghana	May 2023 – Present
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- Maintained a desktop application for managing talking book program audio contents (including content synchronization to S3, performing device firmware updates, content updates and statistics collection).
- Developed an Android app used by field agents to update talking book device firmware, upload new audio content and collect statistics.
- Developed an AI-powered web app for creating Social Behavioral Change programs for marginalized communities.
- Re-architected and redesigned a web app for managing talking book programs. This included functionalities for monitoring device usage, visualizing statistics through Tableau dashboards and program specification management.
- Developed a web app for creating surveys and analyzing user feedback (voice recordings) collected from talking book devices in the field.
- Managed CI/CD pipelines (Github and AWS) for deployment of Amplio applications.
- Administered AWS infrastructure including EC2, S3, RDS and Lambda to ensure smooth running of Amplio applications.
- Led the re-architecting of critical Amplio software infrastructure, including the Audio Content Manager, Talking Book Loader, Amplio Suite and statistics processing services.
- Provided technical support for software issues encountered by field agents and Amplio partners across Africa.

Software Engineer (Remote)	Insurerity Digital, Ghana	October 2019 – 2023
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- Lead developer for REST API services and backend infrastructure, which processes over 10,000 requests and payment transactions daily.
- Worked on the REST API for Complaint Management and Bureau Services (CMAB) tickets management system.
- Developed a USSD application for StarMicro Insurance and SanLam Insurance, which allows users to buy life insurance policies and make payments. Currently used by over 3000 clients.
- Managed CI/CD pipelines (Github and Google Cloud)
- Administered and maintained server infrastructure supporting critical services.

Teaching and Research Assistant	University of Cape Coast	October 2021 – October 2022
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- Tutor for database management system course at the Computer Science department

Software Engineer (Remote)	Npontu Technologies Limited	May 2018 – December 2019
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- Worked on Kedabah Enterprise Resource Planning (ERP) system, which is used by over 50 enterprises in Ghana.
- Developed a web dashboard for the MTN Business Manager mobile app.
- Developed REST APIs for MTN Business Manager mobile application.

Software Engineer, Intern	Kyta IT Solutions, Ghana	May 2017 – September 2017
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- Developed the backend system for physical identity tracking system web application.

Education

Cape Coast, Ghana	University of Cape Coast	2023 – Present
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- MPhil Computer Science
- **Thesis:** Developing a NodeJs/Typescript framework for building USSD applications, with focus on developer productivity, simplicity and scalability.

Cape Coast, Ghana**University of Cape Coast****2017 – 2021**

- B.Sc. Information Technology, October 2021. GPA: 3.6 (First Class).

Cape Coast, Ghana**University Senior High School****2013 – 2016**

- Studied Business with Elective mathematics.

Technical Experience

Projects

- **Teaching Timetable Management System** A system which automates the scheduling and management of teaching timetables for the University of Cape Coast, Ghana.
- **Afiewura: Room Search & Rent Financing App** (1000+ downloads). An app which makes it easier to apply for rent finance, pay rent monthly, request maintenance, or reserve amenities in Ghana.
- **Microsoft Office Suite Questions App** (1000+ downloads). An app which makes practicing Microsoft Word, Office, PowerPoint and Access quiz questions very easy, with 1800+ solved questions available offline.

Additional Experience

Research Publications

- Ephrim, L., Blewudzi, A. K., Umar, H., Haruna, C. R., & Asante, A. (2022). Class Attendance System using WiFi Direct. International Journal of Computer Applications, 183(51), 1–5. <https://doi.org/10.5120/ijca2022921929>
- Effah, E., Aggrey, G., Oteng, F., Ephrim, L., Kyei, D. A., Darkwah, A. A., Junior, A. J., & Agbodemegbe, E. K. (2024). Survey: The Evolution and Applications of Turing Machine. International Journal of Computer Science and Information Security (IJCSIS), Vol. 22, No. 3, June 2024.

Languages and Technologies

- Typescript; Python; Dart; PHP; SQL; Crystal; JavaScript; Elixir; Java; Kotlin; Ruby; C/C++; Go; .NET (C#)
- Laravel; Ruby on Rails; Django; ExpressJS; NodeJS; NestJS; Lucky; Vue.js; Angular; React; SolidJS; Flask; Tauri; FastAPI
- Android (Java/Kotlin); Flutter
- Linux; Git; Shell; Docker; CI/CD; Nginx; Ansible; Terraform; Kubernetes
- Google Cloud (Storage, Cloud Run, Cloud Build, etc.); Amazon Web Services (Lambda, S3, ECR, etc.); Firebase; Arduino
- PostgreSQL; MySQL; MongoDB; DynamoDB; Redis; RabbitMQ;
- Tableau; Paystack; Mobile Money Integrations; QuickBooks