

ELVIS GYASI OWUSU

Technology Founder · AI Systems Engineer · Researcher

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[Portfolio](#) · [Google Scholar](#) · [ORCID](#) · [LinkedIn](#) · [GitHub](#)

PROFILE

Ghanaian technology founder, software engineer, and researcher working across agricultural infrastructure, accessibility, and AI evaluation. Co-Founder and CEO of MechLink LTD, leading an offline-first platform connecting 21,759 registered farmers and 3,554 service providers across nine regions. Co-author of two 2026 arXiv preprints, with manuscripts under review at TACL and ACL Rolling Review. Experience spans full-stack architecture, field deployment, and experimental research.

EDUCATION

BSc Computer Science — First Class Honours

Jan 2021 – Nov 2024

[Kwame Nkrumah University of Science and Technology](#) · Kumasi, Ghana

Final-year research project: **CampSafe**, an AI-powered campus safety platform using unsupervised anomaly detection over location trajectories for automated emergency escalation. Supervisor: Prof. Frimpong Twum.

RESEARCH INTERESTS

- **Reliable AI evaluation:** how benchmark design, evaluator choice, prompt framing, and language coverage affect conclusions about model performance, particularly for African languages.
- **AI and digital systems for smallholder agriculture:** how to design and evaluate useful tools for farmers and service providers when connectivity, language coverage, and data are limited.
- **Inclusive software systems:** how offline-capable architecture, accessibility, and technical reliability affect whether AI-enabled services work in everyday use.

RESEARCH OUTPUTS

Awuni, D. A.; Achenie, L. E. K.; Partey, B. T.; [Owusu, E. G.](#); Sowah, N.-N. D. (2026). *Who Judges Matters: Measuring Family-Conditioned Preference in LLM-as-Judge Panels*. arXiv preprint 2609.17857. Manuscript under review at TACL (submitted Sep 2026). arxiv.org/abs/2609.17857

Awuni, D. A.; Gyening, R.-M. O. M.; [Owusu, E. G.](#) (2026). *AfriSyCo: Factorially Separating Assertive Framing and Verification in African-Language Answer Switching*. Manuscript under review at ACL Rolling Review (Oct 2026 cycle; Submission 218). Earlier-title preprint: arXiv 2609.17853. arxiv.org/abs/2609.17853

EXPERIENCE

Co-Founder & Chief Executive Officer

Sep 2022 – Present

[MechLink LTD](#) · Ghana · Hybrid

- Founded and lead a Ghanaian technology company building digital infrastructure for African agriculture; set company strategy, technical direction, and partnership structure.
- Grew the MechAfrica platform from approximately 1,240 to **21,759 registered farmers** and from 105 to **3,554 service providers** across 9 regions and 16 districts; recorded 6,273 service requests, peaking above 500 per week.
- Negotiated and manage a three-year consortium partnership with Agrinvest, delivering the technology and demand side of the SAMA mechanisation project under AGRA's YEFFA programme.
- Trained, certified, and deployed 64 commission-earning field agents; 65.3% of registered farmers are women.
- Architected the Go/Gin and PostgreSQL platform with SMS, USSD, offline request queues, synchronisation, and Mobile Money settlement.

Technical Lead & Full-Stack Developer

Nov 2024 – Jun 2026

[Digital Drivers Technologies](#) · Remote

- Led development of AI-powered accessibility products, including the Boafo Chrome Extension and Web Accessibility widget, deployed across more than 100 websites through a collaboration with MEST Africa.
- Implemented text-to-speech, speech-to-text, translation, summarisation, and accessibility-focused AI workflows; contributed to Boafo AI.
- Designed shared services in Next.js and Node.js with Google Cloud and OpenRouter integrations; maintained WCAG/ARIA compliance and strong Lighthouse results.

Research and Teaching Assistant

Oct 2024 – Sep 2025

[KNUST — Department of Computer Science](#) · Kumasi, Ghana

- Supported undergraduate courses in Computer Networks, Software Engineering, Object-Oriented Programming with Java, and E-Commerce, working with Prof. Frimpong Twum.
- Mentored final-year students on thesis projects, research methods, and academic writing.

SELECTED PROJECTS

Optomus — AI-Powered Social Media Orchestration Platform

Jan 2026 – Present

[optomusai.com](#)

- Built a multi-tenant SaaS platform for AI-driven content generation and publishing across Instagram, X, LinkedIn, Facebook, and TikTok.
- Designed normalised PostgreSQL with row-level security, goal-driven LLM workflows, OAuth 2.0 token refresh, platform-specific formatting, and real-time analytics in Next.js and TypeScript.

CampSafe — AI-Powered Campus Safety Platform

Feb 2024 – Sep 2024

Academic project

- Built paired Flutter applications for students and responders with SOS reporting, GPS tracking, danger-zone visualisation, secure messaging, and live response routing.
- Integrated a Python/scikit-learn DBSCAN anomaly-detection service through Socket.IO and REST, with Firebase Firestore, Cloud Messaging, and Google Maps.

LEADERSHIP & SERVICE

Student Mentor

Feb 2023 – Present

Independent · Kumasi

Mentor senior high school and university students through university applications, academic planning, and career direction in individual and small-group sessions.

Hall President

Jan 2018 – Jan 2019

Prempeh College · Kumasi

Led student affairs and administration; organised events and workshops on wellbeing, discipline, leadership development, and academic support.

AWARDS

2nd Place — BRIDGE-in Agriculture Pitch Competition

Jun 2025

CrossBoundary Advisory · Mastercard Foundation Initiative

Recognised for pitching and demonstrating the Boaf0 Chrome Extension, an accessibility product built at Digital Drivers Technologies to support persons with disabilities.

CERTIFICATIONS

Google Project Management Professional Certificate (v.3)

Google · Coursera · Jan 2026

[Credly verification](#) · FIBAA and American Council on Education credit recommendations

Google Prompting Essentials Specialization

Google · Coursera · Sep 2025

[Coursera credential](#)

Automate Tasks and Processes with Jira

Coursera · Sep 2026

[Coursera credential](#)

JavaScript Programming with React, Node & MongoDB Specialization

IBM · Coursera · Sep 2026

[Credly verification](#)

NodeJS Masterclass (Express, MongoDB, OpenAI)

Udemy · Apr 2025

[Udemy credential](#)

TECHNICAL SKILLS

Programming	Python, Java, JavaScript, TypeScript, Dart, SQL, Go
Methods	Experimental design (fully crossed, 2×2 factorial, precommitted protocols), Bradley–Terry and paired-comparison modelling, confound-corrected estimation, effect sizes and interaction analysis
AI & data	scikit-learn, DBSCAN, clustering, anomaly detection, LLM integration, retrieval-augmented generation
Backend & systems	Go/Gin, Node.js, Express.js, PostgreSQL, MongoDB, Supabase, Prisma ORM, REST APIs, OAuth 2.0, JWT/OTP, offline-first synchronisation, USSD, SMS
Frontend & cloud	React, Next.js, Tailwind CSS, Flutter, React Native, Zustand, Vercel, Render, Railway, Git/GitHub, CI/CD, Jest

VOLUNTEERING

HaMashiach Supporting Group (Jan 2022 – Present): outreach to orphanages, prisons, and vulnerable communities through donations, mentorship, and skills training.

The Legal Talk Project (Sep – Oct 2024): community education on legal awareness, individual rights, basic laws, and civic responsibilities.

LANGUAGES & REFERENCES

English · References available upon request.