David Kwabena Arhin - Categorized Project Portfolio

This summary organizes your professional projects into technical and industry-specific categories to highlight your versatile development capabilities.

🤖 AI & Emerging Technologies

1. CoreTracking Platform (AngloGold Ashanti - Iduapriem Mine)

- **Status:** 2025 – Ongoing
- **Role:** Software Engineer
- **Contribution:** Developing a specialized geological tracking and automation platform for the **Geological Department of AngloGold Ashanti's Iduapriem Mine**. The platform is designed to digitize and optimize geological data workflows, providing real-time tracking and intelligent reporting for mining operations.

2. AI Agents (Exploratory Work)

- **Status:** 2025 – Ongoing
- **Role:** AI Researcher/Developer
- **Contribution:** Experimenting with **autonomous AI agents** for task automation and research assistance using **Python, LangChain, and OpenAI API**. Building prototypes that combine advanced React-based frontend interfaces with intelligent AI backends for real-world industrial automation.

💰 Fintech & Financial Management

3. Bensco Susu App

- **Admin Dashboard:** bensco-susu-admin.vercel.app/admin
- **Role:** Lead Developer / Architect
- **Contribution:** Engineered a full-scale financial management system for a local Susu collection company. Includes a **Native Android** application for field collectors and a **React-based Admin Dashboard** for the company owner.
- **Key Features:** Real-time contribution tracking, automated payout alerts, worker management, and an opt-in SMS notification system. Architected the backend using

Django REST API with **PostgreSQL**.

🎓 EdTech & Educational Systems

4. Clasar QBank

- **Project URL:** claslar-qbank.vercel.app
- **Role:** Full-Stack Developer
- **Contribution:** Developed an advanced exam simulation environment with a **UWorld-fidelity interface**. Implemented data-driven insights and adaptive learning algorithms designed to maximize user scores through authentic simulation.

5. Holy Child School Management System

- **Project URL:** holy-child-portal.vercel.app/login
- **Role:** Full-Stack Developer
- **Contribution:** Streamlined administrative tasks, student enrollment, and academic tracking. Built a secure portal for staff and administration to manage the end-to-end educational lifecycle.

6. Educ8Africa Job Showcase

- **Project URL:** educ8africa.vercel.app
- **Role:** Frontend Developer
- **Contribution:** Developed a **responsive single-page application** within a strict **four-hour deadline**, demonstrating high-speed delivery and clean code practices.

📡 IoT & Environmental Monitoring

7. Intelligent Waste Management System (Smart Bin)

- **Project URL:** v0-smart-bin-mvp-build.vercel.app
- **Role:** IoT & Full-Stack Developer
- **Contribution:** Built an **Intelligent Waste Management System MVP** to optimize urban waste collection through smart sensor integration and real-time monitoring.

8. Aquafix

- **Project URL:** aquafix.vercel.app
- **Role:** IoT & Full-Stack Developer
- **Contribution:** Engineered an ecosystem for monitoring fish ecosystems using **IoT**

technology. Developed real-time data visualization dashboards to track water quality parameters and environmental health.

🌾 Agritech & Award-Winning Solutions

9. Smagritrade (SMA) - Ecosystem

- **Core Platform:** ideationaxis.com
- **Buyer Portal:** smabuyer.vercel.app
- **Farmer Portal:** smag.ideationaxis.com (Android APK download)
- **Role:** Lead Developer
- **Contribution:** Winner of the **2023 Innovation & Career Fair** at UMaT and **Regional Qualifier for the Hult Prize Ghana 2025**. Architected separate workflows for buyers and farmers to bridge rural production with urban market demand.

🏗️ Business & Enterprise Management Systems

10. Ramoth Menu App

- **Admin Dashboard:** ramoth-menu-app.vercel.app/admin
- **Role:** Full-Stack Developer
- **Contribution:** Developed a specialized internal application for **Ramoth Company** to manage service menus and pricing in real-time.

11. Printing App Management System (Fastprint Sage)

- **Project URL:** fastprint-sage.vercel.app/dashboard/
- **Role:** Lead Developer
- **Contribution:** Engineered a management system with **dynamic order workflows** for high-volume print shops, automating the lifecycle from intake to delivery.

🌐 Personal & Corporate Platforms

12. Solomon Arhin - Strategic Advisor Platform

- **Project URL:** solomonarhin.vercel.app
- **Contribution:** Professional digital platform for a **Strategic Advisor**, showcasing over 20 years of leadership experience.

13. Girl Genius Foundation

- **Project URL:** girl-genius-foundation-54tb.vercel.app
- **Contribution:** Corporate portfolio for the **Girl Genius Foundation**, showcasing mission impact and community initiatives.

14. Personal Professional Portfolio

- **Project URL:** arhindavidkwabena.vercel.app
- **Contribution:** Performance-focused portfolio showcasing technical expertise and professional milestones.

15. The DT Hub / Ideation Axis Core

- **Project URL:** thedthub.com / ideationaxis.com
- **Contribution:** Primary infrastructure for the Ideation Axis ecosystem, supporting multiple sub-applications via React and Node.js.