

Brigidi Ackah Blay

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EDUCATION

Ashesi University

B.Sc. in Computer Science

Berekuso, Ghana

Jan. 2024 – May. 2027

TECHNICAL SKILLS

Languages: C++, Python, Java, JavaScript, Typescript, Go, SQL, HTML/CSS

Frameworks & Libraries: React, FastAPI, Node.js, Spring Boot, Next.js, PyTorch, TensorFlow, pandas, NumPy

Tools & Platforms: Git, Docker, GCP, Apache Kafka, PostgreSQL, MySQL, Snowflake, Postman, VS Code, PyCharm

EXPERIENCE

Co-Founder, Backend Engineer

TrueCreation – Audio Recognition Platform

Aug. 2024 – Present

Seattle, Washington

- Engineered C++ audio fingerprinting engine for real-time music discovery, achieving sub-3s lookup across 3,000+ features
- Designed scalable PostgreSQL schema handling 11,000+ fingerprints/song with optimized vector search

Full Stack Developer Intern

MoneyLink (Fintech Startup)

Jan. 2025 – Apr. 2025

Claremont, CA

- Architected RESTful APIs with Node.js for cross-border payment processing, developed Jest unit tests for service functions plus Postman integration test suites, improving backend reliability by 20%
- Boosted MySQL performance by 30% using schema optimization and advanced indexing for transaction data, cutting API latency by 40%
- Built real-time transaction status updates and currency conversion features, eliminating data sync errors between frontend and backend

AI Engineering Intern

EcoHouse

May. 2024 – Aug. 2024

Remote

- Replaced manual mortgage document sorting process with intelligent classification pipeline using PyMuPDF and NLP, processing 10,000+ documents that previously required ~ 30 hours of human review
- Enhanced search accuracy by 38% through LlamaIndex + RAG architecture, enabling instant document retrieval from previously unsearchable document archives

PROJECTS

High-Performance ML Caching System | C++, Multithreading, ARM NEON

Jun. 2025 – Present

- Engineered C++ caching system with advanced vectorization, achieving 6x performance improvement and reducing ML inference latency from 180ms to 30ms
- Implemented custom memory architecture processing 2.3M+ operations/sec with 180% throughput increase and 65% reduction in memory waste
- Built enterprise-grade system supporting 16+ concurrent threads with automatic crash recovery and adaptive performance optimization

Multi-School AI Handbook Chatbot | RAG, FastAPI, Snowflake

Feb. 2025 – May. 2025

- Built multi-tenant RAG chatbot platform supporting 100+ users with school-aware AI contexts
- Engineered Claude 3.7-based pipeline achieving 95% PDF parsing accuracy with avg 2.3s response
- Deployed FastAPI-React system with Snowflake backend; reduced admin queries by 60%

E-commerce Order Tracker | Apache Kafka, Debezium, WebSockets, Docker

Mar. 2024 – May. 2024

- Developed real-time order tracking system for 70+ fashion deliveries using Kafka and Debezium, enabling sub-second inventory sync
- Built WebSocket-enabled React dashboard for live status updates, reducing manual coordination by 60%
- Containerized entire backend stack (Kafka, PostgreSQL) with Docker Compose, accelerating onboarding by 70%