

# SAMUEL MAXWELL OBENG AVORNYOH

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## PROFESSIONAL SUMMARY

- AI/ML Engineer with over three years of experience developing data-driven systems for SaaS and machine learning. competent in creating reliable data pipelines and self-governing bots that understand their surroundings and break down difficult jobs. competent in working with cross-functional teams to produce effective and scalable solutions.
- Solid experience developing frameworks for evaluating agents' performance, dependability, and goal alignment.
- Excellent technical communication skills, adept at explaining complex agent architectures, documenting agent behaviors, and collaborating effectively in remote environments.

## SKILLS

**Technical skills:** Data Engineering, AI Systems, MLOps, Blockchain, Machine Learning, Embedded System Designs, Networking, Game Development.

**Programming Languages:** Python, Rust, JavaScript/TypeScript, SQL, Bash, Solidity, Golang.

**AI/ML Frameworks:** Pytorch, Langchain, CrewAI, MLFlow, Weights and Biases.

**Tools & Technologies:** Google Cloud Platform(GCP), Docker, Large Language Models (LLM), Solidity, ANNOY Vector Database, Bash.

**Cloud & Infrastructure:** AWS, Google Cloud Platform (GCP), Kubernetes, Docker.

**Backend Services & Databases:** FastAPI, ExpressJs, Redis, Neo4j, Vector Databases(Chroma).

**Soft Skills:** Adaptability, Problem-solving, Effective communication, Collaboration, and Leadership.

## PROFESSIONAL EXPERIENCE

### Machine Learning Intern | Makersplace

**Sep. 2023 – Jan. 2024**

- Created a web-based generative AI model to assist robotic facilitators in course delivery. Trained the AI using a comprehensive facilitator guidebook to ensure accurate and contextual responses.
- Led the development of intuitive visual charts and graphs to effectively illustrate the activities and performance of AI agents, enhancing insights and decision-making.
- Developed ML models to forecast price movements and optimize trading strategies for financial markets.
- Led the integration of AI agents with popular chat platforms like Telegram and WhatsApp using FastAPI, the Telegram Python library, and the WhatsApp JS library, ensuring seamless communication and responsiveness.

**May. 2025 – Present**

### Blockchain/Gaming Development

- Created an action-packed roguelike in the style of a vertical-scrolling game to take part in the Nexus Playground Contest.
- Web3/Forex Facilitator on Whatsapp groups and LinkedIn.

### National Service Personal | Really Great Tech

- AI/ML Engineer NSP at Really Great Tech.

## PERSONAL PROJECTS

### AI Engineer

**Nov 2022 - Present**

- Developed an AI-powered Telegram AI agent that recommends music based on user conversation and mood. Integrated Spotify API to personalize music suggestions and enable music catalog exploration. Implemented AI agent text and voice interaction for an intuitive user experience.
- Designed an early fault detection device using Raspberry Pi, Arduino, microphones, and tilt sensors.- Built a server-client architecture to analyze sensor data in real time for anomaly detection in industrial machinery.
- Created an AI agent that automates stock and forex trading using predictive algorithms and real-time data. Incorporated decision-making logic based on market indicators and trend analysis.
- Developed ML models to forecast price movements and optimize trading strategies for financial markets.
- Designed a Sign-Language-Detection Model using a Hybrid CNN/LSTM.

- Music Companion( AI Agent).
- NeuroBench is a professional-grade embedded systems development environment. It provides visual FSM (Finite State Machine) design, automated code generation, AI-assisted development, and comprehensive peripheral configuration

## EDUCATION

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Jan 2021 - Nov 2025

- **BSc. Computer Science and Engineering** | University of Mines and Technology, Tarkwa