

# Richard Quaicoe Software Engineer

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I am a result-oriented Software Engineer (QA testing and backend focused) with years of experience working with Data, SaaS and a multi-national financial institution. Technologies I have worked with include Python (Flask, Django and FastAPI).

## 📁 Work Experience

### Morgan Stanley, Software Engineer

01/2022 – present

Remote

#### QA/Testing for Low Latency Execution Systems

- Achieved maximum application uptime by setting up a DNS failover recovery system that routinely checks trading application's health and recover disconnected apps.
- Increased application's test quality by 90% by optimizing flaky tests using the Testplan framework.
- Implemented CI/CD pipelines ensuring zero application downtime.
- Proficiently reimplemented 95% of tests for trading engine critical components including Order Books and smart order routers leveraging various communication protocols such as FIX.
- Developed log rotation strategies and a remote file-transfer system, improving log management efficiency and reducing retrieval time drastically.
- Actively contributing to the Morgan Stanley Testplan **open-source** project, demonstrating a commitment to industry collaboration and innovation.

**Tooling:** Python, C++, FIX, Flask, Jenkins, Testplan , Bash, Linux, DevOps.

### Turntabl Ghana Limited, Software Engineer III

09/2021 – present

Accra, Ghana

- Implemented high frequency trading engine with the best tick-to-trade latency under 5 milliseconds on stock products using Java Spring Boot framework.
- Supervised a team of five developers, ensuring project success through guidance and feedback.
- Engineered a synthetic data generator enhancing data privacy using GAN and HMA ML algorithms with near perfect synthetic data accuracy.
- Led my team to the finals of the company's hackathon and got assigned to Morgan Stanley Low Latency Execution Team.

**Tooling:** Microservices, Python(FastAPI), SQLAlchemy RabbitMQ, Machine learning, PostgreSQL, FIX, Java.

### Ministry of Food and Agriculture, Software Engineer

08/2020 – 08/2021

Accra, Ghana

- Spearheaded the setup of a MySQL database, Redis, ELK stack and RabbitMQ on a Linux server to enable smooth testing and deployment of the POS system.
- Led a team of three to build and deploy a real-time monitoring system for agricultural resources using Django REST framework, enhancing resource allocation efficiency.
- Built a log parsing web service using Flask which extracted data points from log files. This contributed to easier visualization and monitoring of SMS traffic performance metrics.

**Tooling:** Python, MySQL, ReactJs, AWS, Docker, ELK

## Education

### **Bsc Computer Engineering,**

Kwame Nkrumah University of Science and Technology

09/2016 – 08/2020

Kumasi, Ghana

- Undergraduate Thesis "Design of a Human Facial Recognition Based Student Attendance System".

## Projects

**Episode**, A python backend framework with rich features. [↗](#)

**Testplan**, An Open Source Multi-testing Framework. [↗](#)

**Pyttl**, Python Table Data Type with some SQL-like operations.

Pyttl [↗](#)

**Human Facial Recognition Based Student Attendance System**

## Skills

Testing and Automation | Concurrency, multi-threading & synchronization |

Object oriented analysis and design | Python | C++ | JavaScript | Typescript |

Django/Flask/FastAPI | Linux