



Sylvester Okonkwo

Software Engineer

I'm a Toronto based enthusiastic full stack software developer and hobbyists / control engineer from Nigeria, very passionate about software design and development, engineering and technology. I am self driven, focused, and hard-working with 10+ years of software development experience and a proven ability to lead others and oversee daily operations within fast-paced environments.

Contact

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Address

151 Norland circle, Oshawa,
Canada

Education

2013-2015

M.Sc Control Science and Engineering

Harbin Institute of Technology, China

2005-2010

B.Sc Electrical and Electronics Engineering

Covenant University, Nigeria

Expertise

- OOP an FP advocate
- AWS infrastructure
- Artificial Intelligence/ML
- Fullstack development

Language

English

Mandarin

Experience

October, 2020 - Present

Briza | Toronto, Canada

Senior Software/DevOps Engineer

- Solution architecture and RFC development to define and streamline product/feature development.
- Develop libraries and systems with organization-wide impact.
- Expedite third party API integrations by developing open api specifications (OAS) tools for code auto generation in typescript.
- Adequate PCI compliance mechanisms to ensure secure payment collection over multiple (custom) processors (stripe, adyen, chase etc) using VGS.
- Custom API client authentication and permission rules using revokable keys.
- API performance monitoring and instrumentation (using datadog) to identify and optimize endpoint response times in accordance with client SLAs.
- Accountable for code running on production including monitoring for errors and hotfixes.
- Co-write and review design documentation.
- Technical mentor for junior engineers.
- Conduct and help define technical interview sessions for new potential hires.
- Advocate and promote software development best practices.
- Refactor AWS resources to enhance scaling.
- Integrate AWS to application and performance monitoring (datadog) as well as Opsgenie pager for oncall engineer rotation.
- Speed up github action (GHA) CI test runners by batching and parallel execution of unit and integration tests.

January, 2020 - October, 2020

Keylight | Berlin, Germany

DevOps Engineer

- Create infrastructure as a code for all client projects to aid auto setup and maintenance.
- Improve product performance by integrating and updating resources (CDN, caching, code optimization, distributed computing).
- Restructure product AWS resources to support horizontal scaling.
- Setup dev, sandbox and production environments to aid product development and testing.
- Setup infrastructure to support continuous integration and delivery for over 40 clients.
- Implement client frontend and backend features from requirement specifications.

○ February, 2018 - January, 2020

IQAir | Beijing, China

Software and Machine Learning (AI) Engineer

CORE AIRVISUAL BACKEND DEVELOPMENT.

- Successful migration of Airvisual's monolithic backend to amazon web service's serverless architecture.
- Collaboration with the United Nations (UN) cartographers/engineers to develop a pollution density map taking into consideration population and geographic location.
- Designed an AI system which boosted the quality of air pollution measurement AQI accuracy to 86%.
- Designed a pollution forecast system using advanced machine learning techniques.
- Low cost pollution sensor (purpleair and airvisual pro devices) measurement calibration using artificial neural networks.
- Time series analysis of pollution measurement scraped from government sources - anomaly detection and validation.
- Image manipulation and masked image merging based on source region accuracy.
- Maptiles generation and serving from merged forecast maps. Used for rendering of the airvisual world pollution map and airvisual earth.

○ July, 2010 - September, 2013

Seamfix | Lagos, Nigeria

Software Engineer

- Verify, prioritize, and fix software bugs
- Build new features and help define product roadmap.
- Manage feature sprint life cycle
 - process product requirements
 - assess current functionality
 - estimate total work timelines
 - break down feature into smaller deliverables
 - solicit feedback regularly
 - continuously measure and document progress
 - analyze sprint execution retrospectively

Certificates and Awards

Sun Certified Java Programmer (SCJP)	2008
Microsoft Certified Software Developer (MCSD)	2010
Nigeria Delta State Graduate Scholarship Award	2010
China Scholarship Council Graduate Scholarship Award	2013
Data Science and Machine Learning	2017

Reference

Yann Boquillod

Director of Air Quality Monitoring, IQAir, China

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