Emmanuel Oche

SOFTWARE ENGINEER

Profile

Highly motivated software engineer with experience in distributed systems design for scale and real time processing. Excellent design, coding, and testing skills; pays close attention to details. Possess clear communication skills, excellent leadership and strong writing capability. Team player with cross-functional awareness and above-average work/time management skills and really loves to code.

Employment History

Staff Software Engineer , LinkedIn, Remote (Sunnyvale, CA)

JANUARY 2022 — PRESENT

- Designed and Developed an Endpoint Security Management solution that not only increased the security of developer workstations on macOs but boosted overall developer productivity.
- Implemented Single Sign-On (SSO) across LinkedIn's enterprise code search environment, effectively eliminating the need for password-based authentication. This change significantly enhanced security and user convenience, benefiting teams across various departments and functions.
- Created a live inventory system that actively monitors LDAP server requests, identifying instances where password authentication is still in use. This proactive approach supports the organization's company-wide transition to SSO, ensuring a seamless and secure authentication experience for all teams.
- Revamped a challenging-to-test codebase, increasing test coverage from a mere 10% to an impressive 68%. This transformation not only simplified code maintenance but also prevented potential regressions, positively impacting multiple teams relying on the codebase and sets example on how to effectively boost unit test coverage.
- Implemented comprehensive telemetry collection across various products, providing valuable insights for root cause analysis. This initiative has been instrumental in enhancing the reliability and performance of products used throughout the organization.
- Developed and introduced developer tools that have become integral to workflows across different departments and teams, fostering efficiency and collaboration company-wide.
- Mentored and coached junior engineers, empowering them to become valuable contributors across the organization. This initiative has not only accelerated project progress but also enriched the talent pool within the company, benefiting teams throughout the organization.

Lead Software Engineer , Centene Corporation, Getzville, NY

OCTOBER 2020 — JANUARY 2022

- Led the design, development, and deployment of a comprehensive OAuth2 compliant server at a program level, integrated with Istio service mesh in Kubernetes. This server supports multiple applications, facilitating user authentication against Active Directory federated with Ping Identity.
- Pioneered the creation and implementation of Kubernetes Operators dedicated to API Rate Limiting and fine-grained Business Policy Enforcement. Leveraged Open Policy Agent (OPA) Server and Envoy Proxies within an Istio Service Mesh to enhance control and security.

Details

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NATIONALITY

USA

Links

github.com/eopeter

Skills

Kubernetes

Apache Kafka

Apache Storm

Apache Spark

C#

Distributed Systems

Golang

Java

Python

Swift, SwiftUI

Objective C

Kotlin

Dart

Docker

JavaScript

Xamarin

Flutter

React Native

CI/CD

- Ensured the resilience of the Kubernetes cluster by implementing rigorous testing procedures, ensuring that all changes to the cluster successfully passed Kubernetes Conformance Tests.
- Architected and implemented a standardized Kafka Rest API, empowering the QA Team to conduct reliable functionality tests. This API is instrumental in testing Apache Kafka messaging across development and test environments where direct access to the broker is restricted.
- Established a streamlined deployment pipeline for AWS Lambda functions, supporting various languages such as Go, Node, Java, .Net Core, and Ruby. Accompanied by Cloud Formation templates, this pipeline includes a "Hello World" repository to expedite the deployment process.
- Revitalized code organization by modularizing the existing repository, fostering code sharing across teams and applications. Significantly enhanced code reusability by extracting frequently used code snippets into importable modules and SDK.
- Championed a culture of excellence by conducting thorough code reviews, setting high standards for code quality, and promoting best practices throughout the development lifecycle.
- Provided valuable technical guidance to a team of 15 Software Engineers, ensuring alignment with project goals and fostering a collaborative and innovative work environment.
- Designed and constructed a bridging Microservice to seamlessly connect a cloud-migrated application with a legacy on-prem application, facilitating a smooth transition and integration between the two environments.

Senior Software Engineer , Linde (Praxair), Tonawanda, NY

OCTOBER 2018 — OCTOBER 2020

- Designed a system to process real-time data streams from IoT devices that consumes millions of data points per second using Apache Storm with Kafka Streams feeding a Cassandra data store that powers dashboards, billing, alerting and batched reporting.
- Designed, developed and deployed a cross platform Bluetooth-based decentralized COVID-19 Contact Tracing App that helps Linde Employees across the world safely return back to work during and after the Pandemic. Using micro services architecture with high availability, the app is deployed in over 80 countries and supports over 100 languages. In addition to Bluetooth Low Energy (BLE) implementation of key exchanges, the app employs location services, local push notification and in-memory storage using Azure Redis and SQL.
- Developed a text-based call center app that allows field technicians to contact the Linde Logistics Call Center in real-time using web sockets. The response time from live agents improved 90% by having text request go through a trained Machine Learning Model that analyses request sentiment, categorize the request for fulfillment and recommend responses based on the call center request history.
- Enabled the company win a $2 Million contract by demonstrating a streamlined cylinder tracking capability and remote telemetry using a mobile app written in Xamarin Forms with QR Code scanning integration. Completed the development after the contract was awarded.
- Rewrote a complex legacy billing application in less than 2 months migrating it from a desktop app to a web and mobile application while ensuring Sarbanes-Oxley compliance requirement for audit purpose.
- Developed a Dry-Ice Shipment Tracker Progressive Web Application to help monitor the sublimation rate and days remaining during shipment to customers.
- Manage cloud deployments to AWS and Azure
- Participate in code reviews for deployments to production

Microsoft Azure

Amazon AWS

Google Cloud Platform

.NET Core

SignalR / Web Sockets

Restful APIs (WebAPI, Node.js)

Redis

Swagger Open API 3.0

jQuery

MS SQL

MySQL

Oracle PL/SQL

PostgreSQL

MongoDB

Firebase Console

Git

eCommerce

Stripe, Paypal, Apple Pay & Google Pay Implementations

Cloud Formation

Ansible

Terraform

Airflow

Helm Charts

Istio

Languages

English

Hausa

Idoma

- Organized the first ever Linde Developer Conference to help our developers share best practices across multiple organizations.
- Mentor Junior Developers on best standard and security practices
- Manage in-house and virtual team of developers creating apps for quality and adherence to corporate standards and security policies.

Software Engineer III , Praxair Inc., Tonawanda NY

MAY 2013 — OCTOBER 2018

- Oversaw the development and deployment of a $6 million Pipeline Billing System built on ASP.NET and Rules Language against an Oracle Database across three (3) Praxair regions that generates over $2 billion in annual revenue.
- Wrote application that runs on control system Human Machine Interface (HMI) and generates billing data that is sent over FTP to an Oracle database. Generated data is used to schedule daily and monthly billing reports and processed for sending to JD Edwards (JDE) System for billing. Implemented a TensorFlow ML Model written in Python to predict billing trends with respect to contract commitments and usage.
- Built a logistic planning interface to a supply chain modeling application used for route and production planning.
- Built mobile applications for IOS and Android in XCode (Swift and Objective C), Android Studio (Java) and Xamarin Forms (C#). Implemented a Restful Node.js web service as backend for mobile application.

Application Developer II , Praxair Inc., Tonawanda, NY

APRIL 2011 — MAY 2013

- Developed and supported applications for the Advanced Control Systems and Model Predictive Controllers teams.
- Work with IMPAC.Net, PMA Models, iFix Application Development, SQL Database integration, Web Application enabler for legacy systems giving more accessibility and robustness.
- iHistorian Administrator; Control Systems Monitoring (CSM) tools development and support;
- Tableau dashboard development to produce visually stunning and analytic business intelligence reports.
- Developed the Hydrogen Marketplace online cavern hydrogen contracting portal.

Project Engineer , Praxair Inc., Tonawanda, NY

MAY 2005 — APRIL 2011

- Application design for Model Predictive Controllers,
- Excel Automation/COM add-in design and Web-Based Thermodynamic, Compressor and Turbine Calculation utilizing HYSYS,
- Telephony (TAPI) Applications Design for Real-Time KPI Exception Reporting.
- Responsible for Advanced Control Systems Operator Interface Systems utilized for plant control, plant modeling, dashboard, Real Time Optimization (RTO) and Facility Power Management (FPM).
- Development of remote plant data collection tools and applications.
- Built Web Based Exception Reporter Application for Praxair Inc from Ground Up with over 1400 users in 8 countries.

Education

MBA, University at Buffalo, Buffalo, NY

AUGUST 2012 — DECEMBER 2014

Won 2nd Place in the Panache Entrepreneurial Competition

Hobbies

Soccer, Weight Lifting, Motorcycles, Hiking, Tennis, Ping Pong, Basketball

Electrical Engineering, Michigan Technological University, Houghton. MI

AUGUST 2001 — APRIL 2005

Dean's List All Four Years

Computer Science, St. Louis University, St. Louis, MO

JUNE 2001 — AUGUST 2001

Transferred

Entrepreneurial Endeavors

Founded www.dormmom.com, Web, Android, iOS

MARCH 2006

Developed the college laundry and cleaning service provider, dormmom.com; wrote the code for the frontend, backend, database design, payment processing and developed mobile apps. Managed deployments to AWS and Azure DevOps. Currently generates about $2 Million in Revenue.

College Guide App, Android, iOS

MARCH 2010

Developed and Deployed the College Guide iOS and Android Apps. Top downloaded app in the college search category. Originally written in Objective C and Java; migrated iOS version to Swift and then rewrote to use Xamarin Forms for Cross Platform Benefits.

Stock Alerts App, Android, iOS

AUGUST 2010

Developed an app to monitor the stock market. Generates push notification to subscribers when certain equity thresholds are hit. Written in Objective C, Swift for iOS and Java for Android.

Open Source Contributions

Blair - a CAP Data Store

JULY 2022

Researching a scalable, highly available and strongly consistent data store that attempts to push the limits of CAP Theorem

Flutter Mapbox Navigation Package

JULY 2019 — PRESENT

Created the Flutter Plugin to Enable Turn by Turn Navigation for Flutter Developers.

link: https://github.com/eopeter/flutter_mapbox_navigation

pub: https://pub.dev/packages/flutter_mapbox_navigation

Flutter Stripe Package

SEPTEMBER 2019 — PRESENT

Enabled Flutter Developers to Add Stripe to your Flutter Application to Accept Card Payments using Payment Intents and the Latest SCA Compliance 3DS Requirements

source: https://github.com/eopeter/flutter_stripe_payment

pub: https://pub.dev/packages/flutter_stripe_payment

Flutter Dial Pad

JULY 2019 — PRESENT

A phone dialer widget that can be added to any Flutter Application to enable ability to dial a number. This could be combined with a voip application to enable placing calls.

source: https://github.com/eopeter/flutter_dialpad

pub: https://pub.dev/packages/flutter_dialpad

Flutter DTMF Tones

JULY 2019 — PRESENT

Generates DTFM Tones for Flutter Applications. You can change the Sampling Rate to get a different output for iOS.

source: https://github.com/eopeter/flutter_dtmf

pub: https://pub.dev/packages/flutter_dtmf

References

References available upon request