

Ibrahim Olanrewaju

Senior Backend Software Engineer

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PROFESSIONAL SUMMARY

A backend software engineer with 7+ years of experience developing highly scalable, reactive, and distributed systems for high-volume businesses. With the ability to think through a problem coupled with the confidence to make ideas heard. A proven ability to maintain and enhance company software to improve operational functionality in line with business requirements. With strong engineering professional skills.

TECH STACK

FRONT END	CSS3 7 years, Bootstrap 6 years, HTML5 7 years, JavaScript 7 years, jQuery 6 years, Angular 2 years, Vue.js 3 years, JSP 7 years, JSF 6 years, Thymeleaf 5 years
BACK END	Scala 5 years, Java 7 years, PHP 4 years, Node.js 6 years, Typescript 3 years, Play Framework 4 years, Spark Framework 6 years, Spring Framework 6 years, CodeIgniter 4 years, Akka, Kafka, Microservices, APIs
DATA STORAGE	MySQL, MongoDB, Redis, Cassandra, SQL Server Access
SERVERS/DEV OPS	Kubernetes, Amazon ECS,EC2,S3, Docker, Git Action, Jenkins, CircleCI, Git, GCP, Nginx
CLOUD SERVICES	MS Azure, AWS, DigitalOcean, Google Cloud

DEPENDENCE BUILD TOOLS	Maven, SBT, NPM, Composer
HTTP REQUEST TYPE	SOAP, Restful, GraphQL
METHODOLOGIES IN SOFTWARE	Object-Oriented Analysis & Design, Rest Style Architecture Software Development Life Circle
PARADIGMS	OOP Programming, Functional Programming, Current Programming
OPERATING SYSTEMS	Linux Red Hat, Ubuntu, Mac OC, Windows 7,8,10

EXPERIENCE

Senior Software Engineer (Fullstack & DevOps)| Fisshbone&Lestr Technology |
Lagos, Nigeria Feb 2018 – Present
website: <https://www.fisshboneandlestr.com>

Fisshbone&Lestr is an ICT company that provides bespoke software for her parent company CELD.

Create several solutions among them is an electronic reward commodity CashToken and guaranty cashback lpoints, ESPI E.t.c. The system enables every patronage or gift to become a life-changing cash opportunity.

- My primary assignment at Fisshbone and Lestr is to work with a team of Senior Software Developers to improve the bulk

- CashToken gifting and chatbot (Fela) using google dialogflow and Kommunicate platform to interact with customers.
- Review, Design and Implement System Requirements.
- Managing and Integrate Third Party System/Services Integrations.
- Developed and implemented CI/CD pipelines to automate the deployment of applications.
- Helped scale the system to handle concurrent connections ranging from 5,000 to 15,000 active connections.
- Improved deployment process within AWS (ex. cross-region automated deployment).
- AWS services administration: IAM, VPC, Route 53, EC2, S3, CodeDeploy, RDS, CloudWatch, CloudFormation, Elastic BeanStalk; VCS: GitHub, Docker, Scripting: Shell, Jira, Aha, Slack, Improve automated test and simulation frameworks.
- Develop and automate standard operating procedures around common failure scenarios.
- **Technologies:** Codeigniter, ReactPHP, Node.js, Typescript, Vue.js, Angular, Recact.js, Jira, Azure DevOps, GitHub, Bitbucket, Trello, Docker, Slack, GraphQL, Restful, MySQL, MongoDB, Amazon S3, Amazon EC2, Amazon-Route 53, Amazon-SNS, Azure VM, DigitalOcean, Docker, Redis, RabbitMQ, Strapi.

PROJECTS

CashToken Version One

website: <https://www.cashtoken.ng>

An electronic reward commodity system.

Maintains and Integrates the customer loyalty reward microservice with third-party clients.

- CashToken buck gifting was implemented using ZeroMQ as a queue system.
- We achieve an unbiased draw engine sorting system by generating a random permutation of a finite sequence and implementing a CashToken draw engine using the Fisher-Yates shuffle algorithm.
- The payment gateway was Integrated with the Futterwave platform.
- Written a custom ORM database persistence and database schema.
- Administrator backend for system report, analysis and activities.
- PHPUnit and Jest.
- Implement users' accessibility sessions, page menus, and privileges using Redis. This is to avoid having to make a request to fetch client information per request in the database. This increases the application's given privileges and revoking privileges performance by 25%.
- Implemented and refactored existing UI, which improved UI rendering speed significantly and drove a better user experience.
- Trained, improved and implemented Google Dialogflow intents to improve customer interaction with Fela chatbot by 56%.
- AWS S3. We archive old CashToken customers' gifting data in the database that has a size of 10 million records or more and store it as an object in S3 buckets. We encrypt the records before upload, specify the version control, and also named the records with the client id and date-time, in order to avoid overriding the data. Using S3 to backup outdated data improves the database's speed and efficiency in terms of updating and reading. When a customer requests records for an analysis report, we extract data from buckets.
- Designed responsive UI using Bootstrap 3.
- Designed and implemented the backend with Node.js, Typescript and Codeigniter.
- Managed deployment CI/CD pipeline Github Action for cloud-host on GCP with Docker.

Centra Messaging Service

Designed and maintains Central Message-as-a-Service.

- Header authentication client's request with a public and private keys pair, Bearer with signature Hash using SHA512 and IP whitelisting.
- Queue "Kue" background worker, processes the message request based on priorities.
- Reprocesses failed messages based on the number of attempts designated by the client.
- Exposing message report analysis endpoint using GraphQL.
- PHPUnit Mocha and Jest.

- Database persistence using Sequelize ORM and MySQL Database schema.
- Designed and implemented the backend with Node.js.
- Managed deployment CI/CD pipeline Github Action for cloud-host on AWS (EC2) with Docker.

iPoints

Designed and maintained Fanatical-as-a-Service and managed continuous development and Integration (DevOps).

- Ipoints' cash-back and buck-gifting were first designed using the divide and conquer approach, with a cron job to fire the processes. It was later improved by 36% by using RabbitMq to distribute the tasks among the workers.
- Integrated Futerwave Payment Gateway for clients, to buy Ipoints products and also subscribe for insurance services.
- Exposing API endpoint for Ipoints wallet to wallet transfer, bulk Ipoints upload in CSV and over restful API, checking wallet balance, redeem voucher etc. Those features are provided in web UI, API and USSD using AfricasTalking Services.
- Using client CSRF token to prevent CSRF attacks by making it impossible for an attacker to construct a fully valid HTTP request suitable for feeding to a victim user.
- API header authentication with JWT using RSA Public/Private keys pairs.
- Ipoints transfer, checking wallet balance, redeem voucher etc. Those features are provided in the web UI, API and USSD using AfricasTalking.
- Implement auto insurance subscriptions by triggering a cron job on the start date of the insurance subscription, then pushing it to a RabbitMq to distribute the tasks among the workers.
- Implemented a comprehensive single insurance subscription. It checked a user's ipoint accumulation to see if they were eligible for the insurance, then pushed the request to a RabbitMQ to distribute the tasks. It processed the task after setting its priority to "high" in the queue.
- Ipoints cash-back rest web-services API integrations with third-party clients ESPI.
- UniTest PHPUnit, Jest .
- Written a custom ORM database persistence and MySQL Database schema.
- Designed and implemented the backend with Node.js and Codeginitier.
- Managed deployment CI/CD pipeline for cloud-host on AWS Github Action with Docker.
- Automated Testing, we make our code do some unit and integration testing. We set up our CI pipeline with a test, build, and dev-deploy jobs, which are meant to run unit and integration tests, if passed, then build to generate a deployable project, and then deploy to the dev environment so as to enable QA or developers to test before pushing to master/main or release branch. We use the CI/CD platform Github Action.

Espi

A financial accounting and payment processor as a service.

Maintains and maintains Financial Accounting-as-a-Service microservice. Working alongside a team of developers in a security aspect and transactions.

- To ensure the secure exchange of data between the payment provider's platform and the eSPI platform payment providers would be required to implement security measures especially where the payment webhook is called.
- Implement hashing of the request and response parameters using the SHA512 algorithm, with keys exchanged during implementation.
- IP Lockdown between the eSPI platform and the payment providers such that every request would be required and validated that it's coming from the provided Payment Providers IP address(es). The exchange of IP addresses occurs during implementation.
- UniTest Jest.
- Provisioning of a username and password exchanged during implementation, with both passed as part of the request parameters.
- Implement credit and debit wallet transactions.

- Implement wallet to wallet transfer.
- Designed and implemented the backend with Node.js, Typescript.

MyBankUSSD

website: <https://mybankussd.com/>

MyBankUSSD is Africa's premier 'All African Banks' USSD Service aggregator.

Designed an eWallet & Banks USSD System for payment services, Payment-as-a-services microservice. Working alongside a team of developers.

- implemented the client payment payload with Sha256 hash, it is used for passing secure values to the payment gateway.
- API header authentication with JWT using RSA Public/Private keys pairs and also whitelist IPs is a security feature often used for limiting and controlling access only to trusted users.
- Loading the payment UI on Iframe and listening on click to closing tag, URL navigation buttons in other give warning or terminate the payment process.
- Implement Register number for USSD (All Nigerian Banks), Buy Airtime, CashToken & Utilities, Local Transfers, Account Opening, Fund MyUSSD Wallet, Payments @ Merchant Locations (Online & Offline), Access to Credit & Loans and Check Balances & BVN.
- Implement Payment APIs and Dedicated USSD Strings for Direct Dials and Rewards Wallet (Unified Reward System: CashToken).
- Implemented direct USSD integration with telecommunications resulted in a 23% reduction in service costs.
- UniTest Mocha and Jest.
- Designed and implemented a front-end UI with Vue.js.
- Designed and implemented the backend with node.js

CashToken Version Two

website: <https://ng.cashtoken.africa>

An electronic reward commodity system.

Design and Integrate the customer loyalty reward microservice with third-party clients with regional platforms (Nigeria, Ghana, Zambia and Kenya). Working with a team of developers to work as frontend and backend.

- Landing page, client dashboard and admin dashboard report analysis, buy CashToken, withdraw money.
- Integrated payment service with myBankUSSD.
- One-way login using OAuth2 OpenId.
- Using GraphQL to fetch and update data in a declarative manner. Put differently, we climb up one step higher on the API abstraction ladder and don't have to deal with low-level networking tasks ourselves anymore.
- Provided environment configuration based on a country and also customise the build in angular.json to build with a designated country name on CLI.
- UniTest Jasmine, Arma and Jest.
- Managed deployment CI/CD pipeline DevAzure and cloud-hosted google firebase and GCP.
- Designed and implemented a front-end UI with Angular and React.
- Designed and implemented the backend with node.js and typescript.

Software Engineer (Fullstack) | Travelden | Lagos, Nigeria / Dec 2017 – Jan 2018

website: <https://www.travelden.com/>

Travelden.com is a travel wing of finchglow group. It provides flight hotels and other travels services through the online sales channel

- Developed a Travel and Tourism web app with a team of developers. My responsibilities are to implement the database persistence, database design, GDS Integration (which is the main core of the software) and Interactive UI.
- Developed a flight ticket booking, hotel and tourism web application by integrating Amadeus GDS API.
- Process automation for the Aviation Management Web App for the Lagos Aviation Academy My responsibility is to build software from end to end. It includes presentation layout UI, business logic, database design, and unit testing.
- **Technologies:** Java, Scala, Play 2 framework, Angular.js, CodeIgniter, Restful, Bitbucket, MySQL, MongoDB, Amazon EC2.

PROJECTS

Travelden

Created and system that performs API calls for flights, hotels and other travel services. Thus, we apply the business profit and incentive calculation to the prices obtained from the supplier via API and sell the item to the customer.

Developed B2B and B2C Online Travelling Agency (OTA) Booking Portal.

- Developed Distributed In-Memory Caching for Booking Engine.
- Developed Audit and Sales Report Portal for Staffs.
- Consuming and Provision of JAX-WS and JAX-RS API.
- Built a microservices APIs for flight and fraud-prevention service
- Created several HTTP authentications authentication with JWT
- Create a service to manage fraudulent activities and prevent it
- Used Kafka to stream results from different sources and consumers by different activities
- **End Result:** Effectively created a booking portal for customers to book flights and other travel services.

Lagos Aviation Academy

website: <https://www.lagosaviationacademy.com/>

Developed the System from End-to-End. Aviation training solution. Ensuring all functionality meets business demands.

- Develop student enquiry and registration process.
- Develop SSO (Single Page Sign-In) Across Domains.
- Develop Real-Time Payment Analytic & Student Reporting System.
- Support Business Analyst to Develop Software Requirement.

Nogeltravels

website: <https://nogeltravels.com>

Team member to develop and improve booking flights and hotels.

- Integrated Rest and SOAP Web-Services APIs with Amadeus (GDS).
- Improved search speed by 43% by using Memcached to store flight results for the session reusability.
- Integrated SOAP Web-Services APIs Rooms_xml distribution system.
- Database persistence using Ebean Java and Mysql.
- Designed responsive front-end UI with Bootstrap and Angular.js

Software Developer (Fullstack) | Travelfix | Abuja, Nigeria / Apr 2016 – Dec

2017

website: <https://travelfix.com/>

- Developed a travel and tourism web app with a team of developers as a Java developer. My responsibilities are to implement database persistence, database design, business logic and unit testing.
- **Technologies:** Java, Play 2 Framework, Spark Framework, MySQL, Bitbucket, Amazon EC2

PROJECTS

Travelfix

Team Member to Developing Travels and Tourism System Back-End.

- Team Member to Developing Travels and Tourism System Back-End.
- Built a microservices APIs for flight and fraud-prevention service.
- Created a several HTTP authentication the authentication with JWT.
- Create a service to manager fraudulent activities and prevents it.
- Database Persistence using Ebean Java and Mysql.
- Rest and SOAP Web-Services APIs Integrations with Sabar.
- Designed responsive front-end UI with Bootstrap and JQuery.

Junior Developer (Backend) | JasCus Smart System | Lagos, Nigeria / Oct

2015 – Apr 2016

website: <https://jascube-technologies.business.site>

- Developed an inventory management system with a team of developers. My responsibilities are to implement the business logic and database schema.
- Developed an intranet-based school management system automation application for Edubiz Schools with a team of developers. My responsibilities are to implement the business logic and database design of the application.
- **Technologies:** PHP, Spark Framework, Spring Framework, Strut 2 Framework, MySQL, Bitbucket, DigitalOcean

PROJECTS

EduBlz

Student management system to satisfy most requirements expected of a such as.

- Student registration process.
- Student attendance and performance management.
- The process of managing all kinds of tuition fees.
- Teachers' record and performance management.
- Database persistence using JDBC and Database schema.
- Design front-end UI with HTML, CSS, JSP and JQuery.

Ajeawa IMS

This is an e-commerce inventory management system. This is a system that will satisfy the following requirements.

- Stock management.
- Item identification.
- Physical and logical warehouse management.
- Item purchase payment management.

Intern Developer | Co-Creation Hub | Lagos, Nigeria / Aug 2014 – Oct 2015

website: <https://cchubnigeria.com/>

- I worked with the Efiko team as a backend developer. My responsibilities include testing the functionalities of the application, logging bugs and issues discovered, and working with the team to make the appropriate corrections.
- I worked intimately with the EduChamber team as a backend developer. My responsibilities included database design implementation, testing applications for correctness, and business logic implementation.
- **Technologies:** PHP, Node.js, JQuery, HTML, CSS, MySql, Bitbucket, Siteground Hosting

PROJECTS

Educhamber

Is an e-learning platform designed for examination preparation? It's a platform that targets students preparing for SSCE, NECO or JAMB examinations. It provides practice questions for all eligible subjects in these examinations.

Networking and Computer Engineer | Gallant System | Lagos, Nigeria / Jun 2013 – Oct 2014

- Assist staff and users in resolving computer-related issues such as malfunctions and program errors.
- Test maintains and monitors computer programs, systems, and networking, including the installation of computer programs and system maintenance.
- Coordination and linking of computer systems within an organization to improve compatibility and information sharing.
- Maintaining operations by monitoring errors and stoppage messages, observing peripheral equipment entering a command to correct errors.
- Installation and configuration of network devices, printers, computer programs, and operating systems.

Software Engineer (Backend) | TravelBeta.com | Lagos, Nigeria / Contract

website: <https://travelbeta.com/>

TravelBeta.com is one of the top 3 travel companies in Nigeria. It leverages its profit on its vendor competition by extracting the best price from all its supplier. Likewise easing the booking and increases the overall customer after-sales experience.

Created and system that performs API calls for flights, hotels and other travel services service from two or more vendors; We aggregated the results and provide the best results based on the business's pre-defined conditions.

- Built the services APIs and led a team of 3 front-end engineers to consume the API with documentation provided.
- Developed a Unified SDK for the vendors to share a common DAO (Data Access Object) – Available in Scala and Scala DSL
- Created several HTTP header authentication with JWT.
- Used Kafka to stream results from different sources and consumers by different activities.
- **End Result:** Increase customer experience and trust in the business. Which increases overall sales.
- **Technologies:** Scala, Java, Kafka, Python, Redis, Spring Framework, MySQL, Akka, AWS, Docker, Kubernetes, ReactJS(Javascript).

Software Engineer (Backend) | Ajala. ng | Lagos, Nigeria / Contract

website: <https://ajala.ng>

Ajala.com is an online travel management company. The company provide travel services to its client through the online channel. Through B2B and B2C business models, the company sells a wide range of services by providing individual platforms for use.

Created and system that performs API calls for flights, hotels and other travel services. Thus, we apply the business profit and incentive calculation to the prices obtained from the supplier via API and sell the item to the customer.

- Built microservices APIs for flight and fraud-prevention services.
- Created several HTTP header authentication with JWT.
- Create a service to manage fraudulent activities and prevent them.
- Used Kafka to stream results from different sources and consumers by different activities
- **End Result:** Effectively created a booking portal for customers to book flights and other travel services
- **Technologies:** Scala, Java, Kafka, Redis, Spring Framework, MySQL, Akka, AWS, Docker, Kubernetes, Angular (Javascript).

EDUCATION

Honor Diploma, Software Engineering | National Institute of Information Technology | Lagos, Nigeria **2011 – 2014**

- 3.88 CGPA

CERTIFICATE

Software Architecture:

<https://udemy-certificate.s3.amazonaws.com/pdf/UC-31788d5d-9cec-4c97-8f61-94d70a272bf4.pdf>

PROFILES

Linked In: <https://www.linkedin.com/in/ibrahim-olanrewaju-2b8473103/>

GitHub: <https://github.com/semslam>