**Bravon Okoth**Full Stack Engineer | Software Developer

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### **PROFILE**

A dynamic and creative Full Stack Engineer with over 3 years of experience in developing scalable web and mobile applications (Android). Expertise in frontend and backend technologies, with a passion for solving complex problems and creating user-centric solutions. Experienced in Flutter, PHP, Python, JavaScript, Node.js, React.js, Vue.js, and Flask, with a focus on backend integration and optimization. Adept at working with databases like MySQL and MongoDB, integrating RESTful APIs, and implementing machine learning models using Python libraries such as Scikit-learn, Pandas, and NumPy.

Currently contributing to the development of the Nilefintech-Mojaloop payment system, focusing on financial inclusion and seamless transactions. Involved in Mojaloop's deployment, integrating Kubernetes and Docker for cloud scalability and ensuring high availability in real-time payment processing. Experienced in building and optimizing payment APIs that allow for secure, cross-network transactions, and working with payment gateways and secure APIs in the context of Mojaloop's open-source platform.

Eager to continue delivering high-performance solutions in fast-paced environments while contributing to innovative and impactful projects in fintech.

**TECHNICAL SKILLS**

* **Programming Languages**: JavaScript, C++, Python, TypeScript, SQL, HTML, CSS, PHP, React, Dart
* **Frontend Technologies**: React.js, Vue.js, Next.js, Tailwind CSS, Bootstrap, Laravel, Flutter
* **Backend Technologies**: Node.js, Express.js, Flask, Laravel PHP
* **Databases**: MySQL, MongoDB, Firebase, Redis
* **Machine Learning**: Scikit-learn, Pandas, NumPy, Joblib
* **API Integration**: RESTful APIs, Payment Gateways, OAuth 2.0
* **Version Control**: GitHub, Bitbucket
* **Tools**: Postman, Docker, PlatformIO, Firebase, Kubernetes,
* **Mojaloop**: is an open-source, real-time payment platform designed to facilitate financial inclusion by enabling the seamless, secure, and efficient exchange of payments across different payment networks. It is primarily built for developing markets where interoperability between various financial institutions, mobile money services, and other payment providers is essential.
* **Testing**: Unit Testing, API Testing

### **PROJECTS**

### **Weather API (Node.js)**

* **Description:** Developed a RESTful API to fetch real-time weather data using **Node.js** and the **Visual Crossing Weather API**.
* **Technologies:** Node.js, Express, Axios
* [GitHub Repository](https://github.com/bravonokoth/weather-api)

### **TPortfolio - Software Company Website**

### **Description:** Built a dynamic software company website with **Laravel Blade, Tailwind CSS, and JavaScript**. Integrated **interactive animations** for enhanced engagement and optimized for mobile & desktop responsiveness.

### **Technologies:** HTML, CSS, Livewire, SCSS, Blade, JavaScript, MySQL, PHP

### **Repository:** [TPortfolio on Bitbucket](file:///snap/onlyoffice-desktopeditors/332/opt/onlyoffice/desktopeditors/editors/web-apps/apps/documenteditor/main/index.html?_dc=0&lang=en-US&type=desktop&frameEditorId=placeholder&isForm=false&parentOrigin=file://&fileType=docx#)

### **Gas Purchase Predictor (Python)**

* **Description:** Developed a **machine learning model** to predict the next **gas purchase date** based on customer consumption patterns.
* **Technologies:** Python, Flask, Scikit-learn, Pandas, NumPy
* **Repository:** [GitHub Repository](https://github.com/bravonokoth/gas-purchase-predictor)

### **Point of Sale (POS) System**

* **Description:** Designed a **robust POS system** with **inventory management**, **pricing strategies**, and **real-time meal preparation tracking**. Leveraged **Laravel** for a scalable database and **user-friendly UI**.
* **Technologies:** HTML, CSS, Livewire, SCSS, Blade, JavaScript, MySQL, PHP
* **Repository:** [Triangle POS on Bitbucket](file:///snap/onlyoffice-desktopeditors/332/opt/onlyoffice/desktopeditors/editors/web-apps/apps/documenteditor/main/index.html?_dc=0&lang=en-US&type=desktop&frameEditorId=placeholder&isForm=false&parentOrigin=file://&fileType=docx#)

### **Country Directory (Vue.js)**

* **Description:** Developed an **interactive country directory** using Vue.js and the **Rest Country API**. Users can search and filter countries by **region** and **name**.
* **Technologies:** Vue.js, HTML, Bootstrap, Axios
* [GitHub Repository](https://github.com/bravonokoth/country-directory)

### **Next.js Dashboard**

* **Description:** Created a **responsive admin dashboard** using **Next.js, TypeScript, and Tailwind CSS**, featuring reusable components and dynamic data visualization.
* **Technologies:** Next.js, TypeScript, Tailwind CSS, React
* [GitHub Repository](https://github.com/bravonokoth/nextjs-dashboard)

### **Farm Module Management (2024, MVP)**

* **Description:** Developed a **farm management system** to streamline **livestock and financial records** for agribusinesses.
* **Technologies:** Laravel, MySQL, JavaScript, Tailwind CSS
* **Private Repository**

**KRA PIN Verification Project**

* **Description:** Built a **KRA PIN verification tool** integrated with the **Smile ID API**, featuring **secure signature generation (HMAC-SHA256)** for real-time authentication.
* **Technologies:** HTML, CSS, JavaScript (jQuery), API Integration
* **Private Repository**

### **Mojaloop-NileFintech Instant Payment System (Ongoing)**

* **Description:** Contributing to an **inclusive fintech payment solution** for **East Africa**, integrating **Mojaloop** for seamless transactions.
* **Technologies:** Node.js, React.js, Mojaloop, MySQL
* **Private Repository**

### **Jr Institute - Education Platform**

* **Description:** Led the development of an **education platform** featuring **Swahili translations**, secure **MySQL database management**, and an interactive **Laravel-powered UI**.
* **Technologies:** Laravel, HTML, CSS, Tailwind, JavaScript, PHP, MySQL
* **Repository:** [Jr Institute on Bitbucket](file:///snap/onlyoffice-desktopeditors/332/opt/onlyoffice/desktopeditors/editors/web-apps/apps/documenteditor/main/index.html?_dc=0&lang=en-US&type=desktop&frameEditorId=placeholder&isForm=false&parentOrigin=file://&fileType=docx#)

### **Tavis (Food Production Cost Calculator)**

* **Description:** Developed a **cost calculator** for **Tavis Food Production**, enabling accurate **ingredient cost analysis** and **budget forecasting**.
* **Technologies:** Laravel, PHP, MySQL
* **Private Repository**

### **CRM API & Backend**

* **Description:** Built a **custom CRM API** for managing **customer interactions, sales workflows, and automated reporting**.
* **Technologies:** Laravel, PHP, MySQL
* **Private Repository**

**PROFESSIONAL EXPERIENCE**

### **Full Stack Engineer | NileFintech-Mojaloop | Freelance/Remote**

**April 2024 – Present**

* Spearheading the **deployment and scaling** of **Mojaloop** on **Kubernetes**, ensuring a highly available and resilient payment infrastructure for real-time transactions.
* Managing **containerized microservices** within a **Kubernetes cluster**, optimizing resource allocation and maintaining system performance for large-scale financial transactions.
* Configuring **Mojaloop Helm charts** to streamline the deployment process, ensuring seamless integration with existing financial systems.
* Implementing **secure APIs** for **Mojaloop Payment Hub** integration, enabling interoperability between banks, mobile money operators, and other financial service providers.
* Developing and integrating the **Mojaloop Open API**, facilitating **real-time payments** and ensuring compliance with financial regulatory standards.
* Enhancing **payment orchestration** by leveraging **Kafka** and **Event-Driven Architecture (EDA)** for reliable transaction processing.
* Implementing **ISO 20022 and FHIR API standards** for financial data interoperability, ensuring efficient communication between diverse payment networks.
* Deploying **NGINX as an API Gateway** to handle authentication, rate limiting, and security layers for Mojaloop microservices.
* Automating infrastructure setup using **Terraform** and **Ansible**, ensuring consistent and repeatable deployments across cloud environments.
* Monitoring and optimizing **Mojaloop transaction flows** with **Prometheus** and **Grafana**, providing real-time analytics and system health checks.
* Ensuring **secure, encrypted data transmission** with **mTLS (Mutual TLS)** and **OAuth2.0 authentication** to protect sensitive financial information.
* Collaborating with fintech partners and regulators to implement **Know Your Customer (KYC)** and **Anti-Money Laundering (AML)** solutions within the Mojaloop framework.
* Driving innovation in **decentralized finance (DeFi) solutions**, leveraging Mojaloop’s open-source payment rails to enhance financial inclusion across underserved regions.

### **CERTIFICATIONS**

* **Mojaloop** – Implementing Inclusive Payments
* **IIPS (Digital Frontiers Institute)** – Introduction to Inclusive and Instant Financial and Payment Systems
* **Google Africa** – Digital Marketing and Search Engine Optimization.
* **Power Lean Project Africa** (Ongoing).