CURRICULUM VITAE

Kwaku Osei Kwakye

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SUMMARY

Experienced software engineer with over 5 years of expertise in full-stack development, backend systems, and database management. Proven track record of delivering scalable and secure solutions in fast-paced environments. Skilled in Javascript, Python, PHP, and cloud technologies like AWS and Google Cloud. Passionate about building innovative solutions and leading high-performing teams.

KEY SKILLS

- Full-Stack Developer (Back-end)
- **Domain Knowledge:** Web, Database Management Systems, E-Commerce & Health Management Systems, SAAS
- **Proficient Stacks**: Javascript, Typescript, ReactJs, PHP, Laravel, Node.js, Express.js, Python, Tailwind, Bootstrap, MySQL, Postgres, AWS, GitHub Actions and REST API.
- .**Familiar Stacks:** VueJs, WebRTC, Firebase, Redis, Google Cloud Services, Docker, Jest, Linux administration, Redis, Go, Terraform, Kubernetes, DataDog, Inspector, Slack, Oracle
- Microservices Architecture
- Agile Development Methodologies
- Version Control Systems (Git)
- Test-Driven Development (TDD)
- Continuous Integration and Continuous Deployment (CI/CD)

PROFESSIONAL EXPERIENCE

Software Engineer, Kirirom Digital, Tokyo, Japan **(Jul 2024 – Present)**

- Developed a **RESTful API** for an AI-powered application that generates personalized videos in multiple languages, using **NodeJs(ExpressJs)** for the backend and **Python (Fastapi)** for AI integration.

- Implemented **CI/CD pipelines** with GitHub Actions and hosted the applications on AWS, leveraging services like EC2, CloudWatch, Fargate, Cognito, and S3 for scalable and secure deployment.

- Integrated AI models for text-to-speech and video generation with Celery for task management and FastApi for building the AI pipeline.

- Collaborated with a front-end developer to ensure seamless integration between the backend APIs and the user interface, enabling users to preview and download AI-generated videos.

- Built a **news forecasting system** that scrapes data from popular news sites, translates content into Japanese, and generates audio news reports using **Python, NextJs,** and **AWS(EC2, CloudWatch, ECR, S3).**

Backend Developer FunPeck, New York, USA (February – December 2024)

Database Design and Management:
- Designed and implemented the database schema using PostgreSQL.
- Created and optimized database queries for performance and scalability.
- Ensured data integrity and security through appropriate constraints, indexing, and backup strategies.

API Development:
- Developed RESTful APIs using Laravel 8 to support mobile and web applications.
- Implemented authentication and authorization mechanisms, including JWT for secure user access.
- Designed and documented API endpoints for various functionalities such as user registration, campaign creation, donation processing, and organization management.

Feature Implementation:
- Enabled users to create and manage organizations and campaigns, including setting up donation goals, tracking progress, and providing updates to donors.
- Developed functionalities for inviting existing users to manage organizations, facilitating collaborative management.
- Implemented account switching feature to allow users to switch between personal accounts and organization pages seamlessly, similar to Facebook page admin functionality.

Testing and Deployment:
- Set up continuous integration and deployment pipelines using GitHub Actions to automate the testing and deployment processes.

Collaboration and Communication:
- Worked closely with front-end developers to integrate APIs with user interfaces.

Full Stack Software Developer, PaySwitch (FinTech) *Accra, Ghana* (Mar 2023 – July 2024)

- Designed and implemented scalable microservice APIs and background workers using **PHP, Webman, Postgresql, and Redis** integrated with various **Google Cloud** services, to efficiently handle hundreds of daily requests for seamless payment processing and data management.

- Developed a **WooCommerce payment plugin** leveraging the company's payment gateway, enabling e-commerce businesses to integrate PaySwitch's payment solutions seamlessly. GitHub Link

- Engineered a **File Conversion Dashboard** using **Python**, **Rust**, and **PHP** to transform encrypted MasterCard and Visa files into accessible formats, serving the needs of two major banks and improving data processing efficiency

- Spearheaded the development of an **in-house Settlement Dashboard** using **Rust** and **NextJs** (**TypeScript**) to manage and account for customer funds, enhancing financial transparency, trust, and operational efficiency.

- Collaborated with **MTN Ghana** to create a **USSD-based Device Lending Platform** using Go, streamlining the smartphone device borrowing process and improving accessibility for users across the country.

Full-Stack Developer GITPlus, *Accra, Ghana* (June 2019 – Feb 2023)

- Led the design and development of enterprise-level web applications, leveraging cutting-edge technologies such as **PHP, Laravel, Bootstrap, Javascript, and React** to deliver scalable, high-performance solutions.

- Spearheaded the development of a **School Management System (SAAS)** used by **50-plus schools**, enabling efficient administration of academic processes, student records, and communication between stakeholders.

- Designed and implemented a **Church Management System (SAAS)** adopted by 100-pus churches, streamlining member management, event scheduling, and donation tracking, resulting in improved operational efficiency for religious organizations.

- Built a **COVID-19 Vaccination System** for the **Ministry of Health,** enabling the record and tracking of vaccinated individuals nationwide. Optimized database queries and integrated **REDIS** for fast data retrieval, ensuring real-time performance even under high traffic.

- Implemented a robust **Continuous Integration/Deployment (CI/CD) pipeline**, including pull requests, code reviews, load/stress testing, and unit/integration/e2e testing, ensuring reliable and stable software releases.

Technical HelpDesk & Digital Support Analyst   Mobobi LLC, *Accra, Ghana* **(March 2018 – Feb 2019)**

- Managing employees' hardware and software procurement and setups
- Responsible for device and password management
- Develop, maintain, and enforce IT policies, security measures, and best practices
- IT Support, upgrade, and configuration
- Backing The system's software to reduce the risk of possible breaches of security and data loss
- Provision of support and troubleshooting
- Provide technical support to customers via phone, email, chat, or remote access tools.
- Creating and setting up user accounts for clients to access web portals
- Troubleshooting hardware, software, and network issues for customers

PROJECTS

- **Bank Application Form**: Designed and developed a sample bank application form using HTML and custom CSS, showcasing front-end development skills and attention to detail. GitHub Link

- **NanaScript Starter Kit**: Created a **lightweight**, **customizable backend starter kit** using ExpressJs, enabling rapid API development with support for customizable database, ORM, and directory structures. The framework provides developers with an accessible foundation for scalable Express-based projects. GitHub Link

- **Shopify Payment Plugin**: Currently developing a Shopify payment plugin using NodeJs, aimed at simplifying payment integrations for e-commerce businesses and enhancing transaction processing efficiency.

EDUCATION

University Of Professional Studies-Accra, Ghana (Aug 2015 – July 2020)
Bachelor of Science, Information Management
Ghana Senior High School- Koforidua, Ghana (Sept 2011-June 2014)
General Arts (Elective Math, Economics….)

LANGUAGES

English (Native level), Japanese (Beginner), Akan (Mother tongue)