

Osei-Yaw Akoto

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EDUCATION

Film & Television Broadcasting,
Manchester Metropolitan University

EXPERIENCE

The Benchmarking Network (BMC), Remote — *Software Developer*

October 2023 - PRESENT

- Developed and maintained the CVD Prevent API and NHSBN API using Python and JavaScript, ensuring its reliability through the implementation of Behavior-Driven Development (BDD) testing. This allowed for more stable and predictable API behavior, reducing errors and downtime by 75%, from 1% to 0.25%, leading to more stable and predictable API behavior..
- Mentored new colleagues, focusing on testing strategies, code standards, and API design best practices. This helped maintain the team's code quality and ensured that new team members could contribute effectively.
- I also lead the creation of technical documentation, which streamlines the onboarding process, saving time for the new hires and increasing their productivity within our team.
- Managed large datasets using SSMS and MySQL, working with both raw SQL queries and Object-Relational Mappers (ORMs). This ensured scalable operations, efficient data processing and retrieval for API operations.

Amadeus IT, Heathrow, London — *Software Developer*

NOVEMBER 2021 - JULY 2022

- Developed and tested API responses using Pytest to ensure the Safe Travel product validated over an estimate of 546 million of Passenger Locator Forms (PLFs) accurately, over a period of 6 months. This ensured the APIs were reliable and could handle large-scale data validation processes.
- Enhanced the name-checking algorithm, written in Python, to better identify and validate passenger names, including handling variations in spelling, abbreviations, and formatting. This reduced the error rate in passenger name validation by 80%, from 5% to 1%, improving the accuracy of traveler identity verification.
- Implemented three new airline watchlists (Air Caraïbes, FrenchBee, and Nippon) and updated an existing watchlist for Etihad Airlines. This involved building and enhancing APIs using Python, and ensuring each watchlist met the specific requirements of the respective airlines.

SKILLS

- **Programing Languages:** Python, JavaScript, Go, C++
- **Version Control:** Git, GitHub, BitBucket
- **Database Management:** SQL, SSMS, SQLAlchemy, ORM, MySQL, ETL
- **Scripting & Automation:** Bash scripting, PowerShell, Linux
- **Operating Systems:** Linux, PowerShell, macOS, Kali Linux
- **API Development:** Flask, NodeJS, REST, Microservices
- **Software Development Practices:** Agile, Scrum, TDD, BDD, Clean Code, Big O Notation, Design Patterns

UPSKILLING

- CI & CD with GitHub Actions
- Clean code practices, data structures, and algorithms.
- Exploring advanced AWS cloud services and CI/CD best practices.
- Understanding of machine learning and its integration into real world projects.

Continuous Learning, Remote— *Python Developer*

JULY 2022 - PRESENT

As an experienced Python developer, I have been actively working on enhancing my development skills since July 2022. This includes learning various algorithms and incorporating them into my codebase, resulting in more efficient and cleaner code. To further streamline my projects, I have reconstructed repetitive code into functions and transformed my Flask projects into microservices. Additionally, I have learned to deploy my applications using Docker and docker-compose, allowing for easier management and scalability. In improving my continuous integration and deployment (CI/CD) skills, I have created my own pipeline using Github actions. Overall, my dedication to upskilling has helped me stay ahead of industry trends and become a more well-rounded developer. I am eager to discuss my experiences further and share how I can bring value to future projects.

Freelancing, UK — *Python Developer*

NOVEMBER 2017 - NOVEMBER 2021

As a freelancer, I have built various web applications using Flask and performed database modeling with ORM and SQLAlchemy, managing complex relationships like one-to-many and many-to-many. I have developed MVP web apps for clients, allowing them to visualize their ideas in real-time and gain clarity on their product's functionality. One of my notable achievements was constructing a monolithic app with Flask and later refactoring it into a microservices architecture using clean code design patterns, making it more accessible to both developers and non-developers. Additionally, I have created several applications, including the Easy CHEF app, modeling portfolio web apps, the Young Spender MVP, a YouTube-to-MP4 converter, and games like Dino Run and Snake. I also worked on **TrustHouse**, a personal project with a back-end API split into microservices, and **StopSearchUK**, a police misconduct reporting app that integrates machine learning and AI to analyze reports and CCTV feeds (via the **TFL API**) for patterns in police behavior. Alongside my freelance projects, I am passionate about mentoring young people in Python, guiding them from the basics to building games and web apps through a structured 12-week cohort. This experience not only equips them with hands-on skills but also instills the confidence to continue their learning journey independently.

TOOLS & FRAMEWORKS

- Flask
- Pytest & Behave
- SQLAlchemy, PostgreSQL, SQL Server Management Studio (SSMS)
- Jenkins
- Docker
- Bitbucket & Confluence

PERSONAL PROJECTS

- **StopSearchUK**: A police misconduct reporting application using machine learning and AI to analyze reports and CCTV feeds for patterns in police misconduct.
- **Mentoring**: Teaching Python to young people, from the basics to building games and web apps over a 12 week cohort.
- akototech.org