Aaron Essien

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EDUCATION

University at Buffalo — Buffalo, NY
Bachelor of Arts in Computer Science, Minor in Psychology — *Aug. 2021 – May 2025*

EXPERIENCE

Software Development Engineer in Test Intern — June 2024 – August 2024
SageSure Insurance — *Jersey City, NJ*

- Implemented comprehensive end-to-end testing strategies ensuring application stability and performance, leveraging tools such as **Postman** for RESTful API testing and **Pytest**, **Playwright**, and **Selenium** for front-end testing.
- Integrated **automated testing frameworks** directly into the **CI/CD pipelines** to run **regression**, **functional**, and **end-to-end tests**, ensuring code quality at the deployment stage.
- Managed the **Software Development Life Cycle (SDLC)** using **Jira**, efficiently tracking bugs, creating user stories, and reporting testing progress to stakeholders.
- Collaborated with **cross-functional teams** to implement automated testing frameworks within CI/CD pipelines, ensuring consistent code quality and mitigating production bugs.
- Participated actively in an **Agile environment**, contributing to sprint planning, backlog refinement, daily stand-ups, and retrospectives, fostering team alignment and delivering incremental software improvements.

PROJECTS

Event-Driven Serverless Image Processing | *AWS, Python, Terraform* — January 2025 – Present

- Architected a **scalable serverless** image processing system leveraging AWS cloud services.
- **Configured AWS ALB** to efficiently route upload requests to an API integrated with S3.
- Implemented an event-driven workflow using **SNS and SQS**, ensuring seamless asynchronous image processing.
- Developed Lambda functions to fetch image requests from SQS, process transformations, and store output in S3.
- Enabled **automated notifications via SNS**, alerting users via email upon processing completion and CloudWatch monitoring and alarms.
- Automated the provisioning and scaling of infrastructure using **Terraform**, ensuring consistency and efficiency.

AWS Cloud-Resume Challenge | *AWS, Python, JavaScript* — December 2024 – February 2025

- Designed and deployed a responsive static website using **HTML, CSS, and JavaScript**, hosted on **Amazon S3** with **CloudFront for global content distribution**. Configured **Route 53 for domain registration and DNS management**, ensuring high availability and reliability.
- Built a serverless backend using AWS Lambda, utilizing **DynamoDB** to manage visitor counts for scalability and performance. Implemented a **CI/CD pipeline to automate deployments** and improve efficiency.
- Automated **infrastructure provisioning using Terraform**, ensuring seamless resource deployment. **Configured Amazon CloudWatch** for real-time monitoring and logging, while securing website traffic with **HTTPS** via **AWS Certificate Manager**.

CERTIFICATIONS

AWS Certified Solutions Architect — In Progress

TECHNICAL SKILLS

Languages: Python, Java, Scala, C/C++, SQL, HTML, CSS, JavaScript
Developer Tools: Docker, Git, Postman, REST API, RESTful API, Jira, Chrome Dev Tools, AWS Cloud, Confluence, Tesseract, MongoDB, Terraform
Libraries: pandas, NumPy, Pytest, Playwright, Selenium

LEADERSHIP

National Society of Black Engineers (NSBE) — Senator I — June 2024 – Present
Colorstack — Fellow — June 2023 – Present
Management Leadership for Tomorrow (MLT) — Fellow — January 2023 – Present
University at Buffalo Track and Field — Sprinter — August 2021 – May 2024