ADDO SONGO DAVIES JR.

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## ***~ 3 Years of Professional Research & Software Cloud Development Experience ~***

Seeking full-time opportunities in Software Cloud Development & Research to use my extensive knowledge of software engineering, cloud engineering, innovative critical thinking skills, & passion for technology to develop & implement high-quality cloud solutions that benefit society.

# EDUCATION



Rochester Institute of Technology (RIT),Rochester, NY May 2024

### Bachelor of Science, Software Engineering

# CERTIFICATIONS



AWS Certified Cloud Practitioner Aug 2024

Dale Carnegie Leadership Training Oct 2023

# SKILLS



**Programming Languages:** Python, Bash, SQL/NoSQL, JavaScript, CSS, HTML, Node.js

**Technical Skills:** AWS, CloudFormation, Terraform, Ansible, Docker, OpenSCAP, Windows, Linux, Git

**Key Concepts:** Cloud Computing, Object-Oriented Programming, DevSecOps, Database Development, System Testing, Infrastructure as Code (IaC), Agile Methodologies (SCRUM)

**Project Oriented Skills:** Self-Motivated, Articulate Planner, Team-Player, Critical Thinker, Problem Solver

# PROFESSIONAL EXPERIENCE



NumFOCUS Sep 2024 - Present

**Cloud DevOps Engineer**

* Developed a website archiving script to automate the archiving of event sites.
* Deployed five AWS Lambda functions to integrate ticket data from multiple ticketing platforms with HubSpot on a bi-weekly schedule and deliver email summaries of each sync with AWS SES.
* Create and manage domains, including configuration of DNS records.
* Oversee cloud infrastructure and security for open-source projects and provide technical recommendations for their AWS EC2 instances.

National Consortium for the Study of Terrorism and Responses to Terrorism (START) Aug 2024 - Sep 2025

**Open-Source Cloud Application Advisor**

* Developed a comprehensive Oracle-to-AWS migration plan, including an AWS architecture diagram and monthly cost estimates.
* Migrated Oracle schemas and data to an AWS Aurora PostgreSQL instance using AWS DMS.
* Deployed a proof-of-concept SDEverywhere system dynamics model application using AWS Amplify.
* Deployed a proof-of-concept Requal text annotation application using AWS EC2.
* Deployed proof-of-concept applications for four additional Node-based applications using AWS App Runner.

## RIT Collegiate Science & Technology Entry Program (CSTEP), Rochester, NY Jan 2024 – May 2024

### Cloud Application Security Researcher

* Researched ways to create a secure software environment in the cloud for testing proof of concepts, ensuring data integrity & confidentiality while mitigating potential vulnerabilities.
* Conceptualized software requirements needed for 3 distinct solutions.
* Crafted a comprehensive technical research document detailing progress & presenting potential architectures for addressing the identified problem.

## RIT Laboratory of Software Design & Productivity, Rochester NY Mar 2023 – Sep 2023

### Software Security Research & Development Engineer

* Enhanced vulnerability management processes with actionable insights from analyzing 800+ CVEs that were in JSON and XML formats.
* Deployed an application to retrieve CVEs from CNA catalogs, gathering 2,800+ unique CVEs.
* Deployed an application to extract CWEs from CVEs, getting 1,000+ unique CWEs between 2020-2023.
* Analyzed collected data & showed patterns for analyzing CVE automatability, characterizing 800+ CVEs.

## TEOCO, Henrietta, NY Aug 2022 – Jan 2023

### Software Engineer Intern

* Spearheaded end-to-end product feature development using Python, Selenium, OCR, and Pandas, boosting efficiency by 30%.
* Engineered a password-changing application with Selenium, cutting manual workload by 80%.
* Curated a report analysis application, sending email notifications with detailed statistics, enhancing error resolution & user awareness.

Penn State University Applied Research Laboratory, State College, PA Jun 2022 – Aug 2022

### Software Engineer Research & Development Intern

* Deployed a scalable, fully automated security pipeline for AI software using Docker, Podman, OpenSCAP scanner, & Ansible-Runner. Developed using VS code and in a Linux Environment.
* Orchestrated the development of a streamlined process for pulling, scanning, and reconfiguring Docker images based on OpenSCAP Policy using Ansible, resulting in a 40% reduction in deployment time.
* Enhanced OpenSCAP policy compliance of JupyterLab Image by 23% through pipeline integration.
* Enhanced OpenSCAP policy compliance of RedHat Image by 24% through pipeline integration.

# PROJECTS



## Maintenance Request Workflow Application – Senior Capstone Project Sep 2023 – May 2024

### Cloud Computing, Microservices, AWS Technologies, Python

* Collaborated with a team of 5 on the development of a responsive web application for Lockheed Martin, streamlining IT license maintenance workflows, serving as Back End Lead.
* Crafted a comprehensive AWS CloudFormation template to implement automatability and infrastructure as code (IaC) to the back-end stack.
* Crafted unit & manual test cases to validate database & Lambda quality & logic in the existing architecture, achieving code coverage of 95%.
* Utilized AWS Relational Database Service (RDS) to deploy a database to hold workflow data.
* Utilized AWS Lambda & API Gateway to deploy CRUD Operations for key database resources that returns data in JSON format.

## OtterView – Academic Project Jan 2023 – May 2023

### Cloud Computing, Microservices, AWS Technologies, Python

* Collaborated with a team of 4 to develop a user-friendly web application for finding the sentiment analysis of a specified event.
* Implemented backend with AWS Lambda processing Twitter comments via AWS Comprehend, storing data in DynamoDB.
* Created CloudFormation template for deploying application resources.
* Configured Python UI application runner for automatic CloudFormation deployment & user interaction, cutting application startup time by 75%.