

Oroghene A. Emudainohwo

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Summary

Software Engineer with over 2 years of experience at AWS designing and operating secure distributed backend services and APIs using Python, C, and Java. Expertise in DDoS mitigation and security automation, including reducing DNS mitigation updates from 4 weeks to 3 days. Skilled in cloud security infrastructure, RESTful API development, and agile collaboration, seeking to drive scalable secure solutions in cloud environments.

Relevant Skills

- **Skills:** Python, C, Java, TypeScript, Ruby, Go, Bash, Linux, API development, RESTful API, Backend development, Distributed systems, Systems programming, Amazon Web Services (IAM, S3, DynamoDB, EC2, Lambda, CloudWatch, CloudFormation, AppConfig, Athena), Agile, Docker, Terraform, Grafana, OpenSearch, Distributed denial-of-service) DDoS mitigation, Intel DPDK (data plane development kit), TCP/IP protocol analysis, Network traffic analysis (Wireshark), Cisco Packet Tracer

Education

Drexel University

Bachelor of Science, Electrical Engineering

Sep 2018 - Jun 2023

Philadelphia, PA

- **GPA:** 3.77/4.0 (2:1)
- **Achievements:** Pennoni Honors College Medallion recipient
- **Coursework:** Minors in Computer Science, Minors in Mathematics

Professional Experience

Sharing Excess

Software engineer intern

Mar 2022 - Sep 2022

Philadelphia, PA

- Built and deployed web app for partnership with nonprofit using React, Google Firebase, and Node.js
- Improved web app latency by migrating from Firebase to company server and backend using Node.js
- Designed and built rebranded look for company main product using Figma, Firebase, and Node.js
- Built chat app to enable users communicate details of request on partnership web app using Firebase

Amazon Web Services

Software development engineer

Jul 2023 - Present

Santa Clara, CA

- Led a task force to cut the average age of the oldest deployed code across 55 AWS Shield pipelines from 100 days to under 28 days by revising pipeline classifications, updating CodePipeline approval workflows, and replacing manual approvals with automated integration tests using Terraform and CI/CD scripts
- Developed a dashboard with Grafana that visualizes service availability, DDoS-impact minutes, packet latency, and error metrics, enabling the team to pinpoint issues quickly and cut incident investigation time
- Spearheaded the integration of three distinct on-call rotations into a single unified team, reducing redundant paging events by 25% and improving engineer work-life balance.
- Trained and onboarded 8 new team members on on-call run books, tools, SOPs, and escalation expectations through shadowing sessions, resulting in a 40% faster response time for new engineers
- Engineered a pipeline that reduced DNS Known Good Resolver IPs bloom filter deployment time by 90%, reducing "Unknown Resolver" data noise from 30% to less than 10%.
- Designed and deployed a distributed Auto-Reboot system that automated OS patching for the global data plane fleet, achieving a 30-day patching SLA and reducing manual maintenance overhead by 80%
- Engineered a DynamoDB-backed distributed locking mechanism that coordinated maintenance windows across 600+ locations in over 30 regions, maintaining 100% service availability during critical security updates.
- Implemented a high-scale diagnostic orchestrator using gRPC and DynamoDB to monitor hardware health (CPU, NIC, SSD); reduced the time to identify and decommission faulty edge hosts by 65%.
- Automated the ticketing workflow for Data Center Operations (DCO), eliminating manual hardware health checks and preventing the activation of data plane software on unhealthy hardware.
- Improved software version consistency across the fleet by implementing manifest tracking, reducing the count of "stale" software versions by 40% within the first quarter of deployment.
- Built a threat intelligence visibility layer using AWS Athena that enabled the security engineer team to query top talker IP trends in real-time; improving operator experience when investigating DDoS attacks
- Architected a pipeline wave assignment algorithm that prioritized deployments based on location health, successfully lowering the average deployment age from 300 days to 90 days.
- Eliminated over 30 manual regional service build tasks by orchestrating automation tasks to reduce build time from 2 months dev time to minimal checks to debug, edit, and retry failed workflows

Hackathons

HackMoney Hackathon | [GitHub](#)

May 2022 - May 2022

ETHGlobal

Remote

- Collaborated in a team of 5 to create a pay-as-you-go insurance protocol on Polygon blockchain
- Create governance smart contract using Solidity and tested using Mocha framework
- Won Superfluid 3300 USD prize for best use of insurance and Coinbase Wallet prize for best use.

Code For Good Hackathon | [GitHub](#)

Feb 2022 - Feb 2022

Code For Good

Remote

- Led a team of 3 to work on Front-End. Delegated tasks and helped teammates debug
- Designed layout of website with Figma and implemented design using React.JS
- Awarded software engineering internship with JPMorgan Chase & Co

Volunteering, Societies, and Others

Sharing Excess

Mar 2022 - Sep 2022

Volunteer

- Distributed food at pop-up events at parks in Philadelphia and sorted produce donations in warehouse

African American Community Service Agency (AACSA)

Apr 2025 - Present

Volunteer

- On the second and fourth Tuesdays of the month, I volunteer in the "Food on the Table" program, helping distribute food to local communities around the San Jose African American Community Service Agency (AACSA) office (304 N 6th St, San Jose CA 95112). I also do the same at Emmanuel Baptist Church San Jose (467 N White Rd, San Jose, CA 95127). I volunteer at other events organized by the San Jose African American Community Service Agency when I am available.

Tau Beta Pi Engineering Honor Society

Jan 2022 - Present

Member

- The Tau Beta Pi Engineering Honor Society honors engineering students in American universities who have shown a history of academic achievement as well as a commitment to personal and professional integrity.

IEEE Eta Kappa Nu Honor Society

Mar 2022 - Present

Member

- IEEE-Eta Kappa Nu (IEEE-HKN) is the official honor society for the Institute of Electrical and Electronics Engineers (IEEE), recognizing excellence in electrical and computer engineering, computer science, and related fields. Founded in 1904, it inducts students based on high scholastic standing, character, and leadership, with over 200 chapters worldwide dedicated to professional development, community service, and academic support.

Cisco Networking Academy Verified Networking Basics

Nov 2024 - Present

Certificate Holder

- Cisco verifies the earner of this badge successfully completed the Networking Basics course and achieved this student level credential. Earner has knowledge of the types of networks, how they work, how devices send and receive data, the types of network cabling, how IP addresses find information on the Internet, how transport and applications operate, and has practiced building a home wireless network. Participated in up to 13 Cisco Packet Tracer activities.