Enoch Chigbu

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EXPERIENCE

Google April 25' - Present | New York, NY

Software Engineer - *C++, Java, Python, Bash, Docker, AWS, GCP*

- Currently implementing distributed confidential computing across GCP Confidential Space and AWS Nitro Enclaves

Google May '24 - Aug '24 | Seattle, WA

Software Engineering Intern - *Java, Bash, Protobuf*

- Optimized the Android advertisement selection process by implementing seller-defined payload size limits
- Enabled advertisement buyers to assign priority values to their advertisement data for more relevant user targeting
- Ensured a 90% utilization rate for total compressed payload size given uncompressed advertisement buyer data
- Utilized a heuristic approach to estimate compressed data sizes with 80% accuracy, providing size predictions 3x faster than traditional compression techniques
- Wrote custom bash scripts to measure end-to-end latency for the Android advertisement selection process, improving the advertisement selection process by 15% when compared to previous implementation
- Devised a plan to train a machine learning model to further optimize compression when future data is collected
- Developed open-source APIs for the Android Privacy Sandbox initiative, enabling privacy-preserving ad targeting.

Google May '23 - Aug '23 | New York City, NY

Student Training In Engineering Intern - *Angular, Dart, Java, SQL, Protobuf*

- Executed full stack web development, utilizing AngularDart, HTML, and CSS for the frontend, and Java for the backend for two projects (wrote design and launch documents, implemented unit and integration testing)
- Implemented a custom date range selector for a live graph within Google Ads Insights, aligning with a new product-wide design overhaul, with new features reaching 100k+ users in a 7-day window post-launch
- Added six new audience reporting groups within the advertisement insights section, giving millions of advertisers more information about their advertiser performance among specific user demographics

EDUCATION

San Diego State University Aug '21 - Dec '24

Bachelor of Science, Computer Science with Minor in Mathematics

Coursework: Data Structures, Algorithms, Operating Systems, Networks, Machine Learning, Software Engineering, Unix Systems, Technical Writing, Abstract Algebra, Discrete Mathematics, Applied Probability

LEADERSHIP & INVOLVEMENT

CyberSecurity Organization | *President (2024), Technical Lead (2023-24)* Aug '23 - Dec '24

- Hosted bi-weekly meetings, teaching students about the basics of cybersecurity with Python and Colab
- Developed the club's website sdsucyb.org as the main hub for member updates (AWS, HTML, CSS)

Quantum Computing Club | *Technical Lead* Aug '23 - Dec '24

SKILLS

Languages: Java, Python, C++, C, Dart, Bash, Typescript, SQL, Rust

Technologies: React, Angular, Git, Docker, Kubernetes, Flask, Unix, Pandas, GCP, AWS, Bazel, Terraform

PROJECTS

Multi-Platform Network and System Infrastructure - *Bash, Python, C*

- Built a multi-platform business network using OpenBSD, FreeBSD, Ubuntu, AIX, Solaris, and AlmaLinux.
- Deployed key services including DNS, OpenLDAP, mail, NFS, and Docker-based web hosting (Nginx, Portainer).
- Configured secure SSH connections and implemented strong network security measures across virtual machines
- Configured a GitLab server using Azure and a backup hosting server with ESXi for cloud and backup management

Ice Cream Order & Inventory Management System - *Python, Javascript, SQL*

- Developed trouble ticket management subsystem to streamline problem reporting and resolution across order entry, inventory management, and shipment tracking systems.
- Used Flask and Bootstrap to implement CRUD operations, dynamic form logic, and reporting functionalities.
- Implemented Continuous Integration (CI) pipelines using GitHub Actions, achieving an average job run time of 14 seconds and an average queue time of 8 seconds, and reduced failed job impact by identifying and addressing a 33% job failure rate.