Sherri Li

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Technical Skills

Programming: Python, Javascript, Shell Script, Go

Tools: Docker, Selenium, k6, Jenkins, Grafana, Telegraf, InfluxDB, MySQL, Prometheus, Loki, Terraform, AWS, wrk2, Kibana, stress-ng, apache bench, RabbitMQ

Work Experience

Developer Contractor **September 2024 - present**

Stealth Startup

- Created image and text scraper using python and pyppeteer.
- Working on encoding images and matching scraped data.

Performance Engineer **November 2021 - August 2024**

Forcepoint (acquired Bitglass in November 2021)

- Created a containerized jenkins service to automate deployment acceptance tests against the QA environment.
- Used sysbench, lua, and shell scripting to breakpoint test various auroraDB configurations (with and without RDS proxy). Replicated a system outage and found the root cause to be maxing out DB connections.
- Provided performance benchmarks for developers for mobile agent API endpoints using k6 OSS and k6 Cloud.
- Tracked latency and availability of nginx forward proxy by creating custom synthetic monitors in different AWS regions, with a Fargate scheduled task running a containerized test on 10minute intervals. The test logs were sent to a Loki write endpoint, displayed in Grafana Cloud dashboards with alerts going to Slack and OpsGenie.
- Leveraged Go to create an exporter to collect mcrouter metrics and publish them to a Prometheus endpoint.

Performance Engineer **August 2019 - November 2021**

Bitglass

- Automatically notify DevOps team to autoscale backend nodes when memory and swap is above certain threshold, through creating a dockerized Apache Manager service that sent slack alerts when it terminated specific Apache httpd workers stuck in Graceful state, and the backend resource usage remained excessive.
- Created release-to-release comparison of portal endpoints load time, by developing a dockerized test suite using python and selenium. The tests sent data to mySQL DB and displayed as a graph in Grafana.
- Determined the most reliable RabbitMQ configuration to use in production, through load testing various cluster sizes of sharded and un-sharded RabbitMQ nodes.
- Determined the most cost effective AWS EFS configuration to use by load testing the provision mode versus the burst mode.
- White box tested the performance of Cryptography team's encrypt and decrypt functions in C, Python, and Go.

Test Automation **April 2018 - June 2019**

Information Technology Services, UC Santa Cruz

- Developed automated functional tests for homegrown UCSC web applications using Python, Shell, and Selenium.
- Integrated GoogleSheets API into Python scripts to generate automatic test logs.
- Ran stress tests using JMeter HTTP requests feature.
- Developed regression tests for websites that could be run on Ubuntu Linux, CentOS, Windows, and MacOS.
- Leveraged LastPass CLI to store the credentials for automated login tests.
- Created a CI/CD pipeline in Jenkins pipeline that runs tests from BitBucket inside a Nebula server whenever a code change is made.

- Created QA automation tutorials and one-on-one training for technical staff and business analysts.

Project Experience

Remed Me

- Remind patients to take their prescription medication.
- A headless web application built using Python and Flask.
- The back-end calls Cloud Vision API for image parsing, and Twilio API for text alerts and image retrieval.

Food Friends

- Connect volunteers to local food pantries using GoogleMaps API.
- A mobile application built using Android Studio and Java.
- Created a page for users to make accounts and donate money through Venmo.

Education

University of California, Santa Cruz **September 2015 - June 2019**

B.A. Mathematics, Minor in Computer Science GPA: 3.8 / 4.0