

Prakhar Rawat

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Technical Skills

Languages: Python, Go, Java, Ruby, C++, Scala, Groovy, HCL

Testing Libraries, Frameworks, CI, Build System: Kubernetes, Helm, Docker, Terraform, Chef, Ansible, GCP, GKE, NGINX Ingress controller, Jenkins, Artifactory, Consul, RabbitMQ, XCode, Packer, Watir, Selenium

Software Engineering Projects

Visual Regression Tool (Hackathon Project)

<https://github.com/saucelabs/hackathon-visualregression>

Built a tool that used semantic image segmentation which identifies and compares screenshots to define/update the baseline

- Used a tensorflow model, deeplab, to assign the semantic labels that the tool identifies
- Leveraged a custom model to convert the dataset to a tensorflow compatible protobuf record
- Connected the model with a node server to show the difference

Rest Application

<https://github.com/prakharr/SampleApplication>

A Python-flask REST API based application which uses native Ingress as load balancer service deployed using helm

- Defined a local cluster using minikube which implements a service using ClusterIP
- Developed a health check on the deployed replicas
- Implemented Helm charts with replica sets with readiness and liveness probes
- Implemented auto pushing the binary to chartmuseum and using that dev version of the umbrella chart

Professional Experience

Aug 2018 - May 2019

Sauce Labs

San Francisco, CA

DevOps Intern

Member of the internal-tools tiger team building an improved an efficient deployment pipeline migrating to public cloud

- Worked on the headless browser implementation which help companies shift left and catch bugs earlier in the pipeline
- Decoupled services from a monolithic architecture and automated their deployment process
- Worked on wrapper methods for deploying/reaping clusters in GKE using **terraform**
- Maintainer of the local development parent helm chart and designed its ingress controller in nginx to respective services
- Configured chef node pools in GCE preemptible VM instances to withstand fault tolerance in public cloud
- Switched to **nginx** from traefik as the default load balancer to proxy the assets to an S3 bucket
- Implemented **prometheus** monitoring and alerting post deployment
- Implemented POC on switching from **helm** to helmfile to use concurrent **kubernetes** deployments

June 2018 - Aug 2018

Sauce Labs

San Francisco, CA

Open Source Intern

https://github.com/watir/tap_watir

A test automation framework built in Ruby using Watir Api which automates user interactions on mobile devices

- Created an automation framework for mobile applications using open source frameworks Selenium, Appium, and Watir
- Developed a wrapper for Watir API to extend the support for iOS and Android devices
- Pushed changes to selenium and appium which helped reduce obscure issues

January 2016 - June 2016

Buzz4health

New Delhi, India

iOS Developer Intern

An iOS Application made which displays a random fact every time the user opens the app. Added the ability to enhance image

- Integrated the Facebook and Gmail login OAuth workflow to simplify the process of sign-up
- Used a third party MKNetworkKit API to make a single queue for the application and to remove image cache dependency
- Created XCTests for the app to help improve the code coverage upto 79%

Education

Master's of Science in Software Engineering **Rochester Institute of Technology, NY**

Graduating May 2020