

# Prakhar Rawat

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## Technical Skills

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

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

## Software Engineering Projects

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### 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
- Implemented POC on switching from helm to helmfile to use concurrent kubernetes deployments

## Professional Experience

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Aug 2018 - Present

**Sauce Labs**

San Francisco, CA

### Software Engineering Intern [Platform Engineering]

*Member of the internal-tools tiger team building an improved and efficient deployment pipeline the kubernetes way*

- Worked on the headless browser team which goes live in SauceCon
- Separated 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

June 2018 - Aug 2018

**Sauce Labs**

San Francisco, CA

### Open Source Intern

[https://github.com/watir/tap\\_watir](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 like 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 XCTestests for the app to help improve the code coverage

## Education

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

Expected 2020