Tasdik Rahman

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Work Experience

DeliveryHero, Berlin: Senior Systems Engineer, Logistics

July, 2021 - Present

- Designing & executing from scratch a CLI tool in golang wrapping over k8s and AWS api's for automating manual tasks during k8s upgrades for all 50+ k8s clusters managed by our team, achieving reduction of 30% upgrade time, making upgrades reliable and repeatable, leading a team of 3 newer team members during this project and open sourcing it.
- Participate in oncall rotations for all logistics infrastructure related issues and solve our internal developer requests/features as and when they come, mentoring new team members.

Gojek, Bangalore: Software Engineer, Engineering Platform team December, 2018 - July, 2021

- Designing, Implementing & maintaining the in house deployment platform, for deploying to kubernetes & VM's, doing an average of 300+ deployments/day, empowering developers of the 18+ product groups, across 500+ micro-services, spread in 13000+ VMs & 100+ kubernetes clusters, to deploy faster, with higher confidence achieved via canary deployments, in a fully automated fashion, with 1 click deployment UX.
- Implemented SSL certificate automation for all 180+ internal developer VPNs inside the org, by building & open sourcing kingsly, taking care of the entire certificate life-cycle, right from creation to rotation, reducing human effort spent on renewals to zero. Release blog post.
- Designing, implementing & maintaining the generic VM creation API microservice for the org, giving developers the interface to create VM's of their choice, from a list of pre-baked templates for them to pick from, also effectively solving the inventory problem for each team.
- Designing & executing the re-architecture of chat platform, used by all driver-customer communication in app, serving 195k+ requests/minute, by introducing istio as a service mesh, allowing them do 60+ deploys a week via canary deployments, out of box service discovery and 1-click deployment UX, via integrating client-go of istio in our deployment platform.
- Being on-call for our products and platform, mentoring newer members in team, enabling them to practice TDD while working on our platform owned, product code bases, shadowing them while they debug pagers for our production systems. Consulting with and collaborating with other engineering teams as need would arise to achieve our goals collectively.

Razorpay (YC W15), Bangalore: Infrastructure Engineer I July, 2017 - December, 2018

• Engineer #4 in the initial cloud infrastructure team @ Razorpay, handling day to day operations, managing logging/monitoring and existing infra on kubernetes as well as the legacy ones, handling upgrades, adding newer services, rolling hotfixes for security vulnerabilities, RnD for our newer kubernetes infrastructure, mentoring team members, helping the cloud infrastructure scale from handling transactions from 30k+ merchants to 85k+ merchants, migrating workloads to self hosted k8s from VM compute.

OPEN SOURCE

Google Summer of Code: oVirt Org under RedHat

Summer 2017

• Wrote additional Ansible playbooks from scratch along with their test cases for enabling remote machine engine renames with zero downtime & for interaction of the main control engine with remote resources (Database, Data Warehouse) & other oVirt-utilities which would help in Easier testing, Automated Re-deployment & Reducing manual errors while deploying.

EDUCATION

B.Tech in Information Technology, SRM University, India

2013 - 2017

TECHNICAL SKILLS Languages - Ruby, Python, Golang, Shell Scripting

Tools/Frameworks - Chef, Ansible, Packer, Terraform, Docker, Ruby on Rails, Flask

Databases - PostgreSQL, MySQL, ETCD, consul

Logging/Monitoring - prometheus, grafana, fluentd, telegraf

OS - Unix/Linux

Container Orchestration - Kubernetes

Service Mesh - Istio CI/CD - gitlab, drone

Cloud Providers - AWS, GCP

NOTEWORTHY PROJECTS All projects are available on Github: github.com/tasdikrahman

• SRM Search Engine: SysAdmin & Backend developer

A General Purpose Search Engine, funded by "National Internet Exchange of India". Oversaw migration to Flask based app from a legacy CGI service. Helped write RESTful API's for various smart modules for our search service. Wrote scripts to automate the maintenance of our server. Crawlers to extract & index millions of pages, using NLP techniques to clear irrelevant data. Helped design & set up a 15 node, master-slave architecture Hadoop cluster.

• Plino plino.heroku.com/

Conceived plino, a high accuracy spam filtering system built on top of a custom *Naive Bayes Classifier*, trained against 33,000 emails. Designed & developed RESTful APIs using Flask. Implemented Caching for server load reduction. *Achieved over* 3000+ users in our 1st version.

• easyrbac

github.com/tasdikrahman/easyrbac/

A *pip module*, which allows you add *Role Based Access Control* to your application using which you can include fine grained rules specifying which role has access to what kind of resources. An implementation of Prof. Sandhu's paper

• tnote

github.com/tasdikrahman/tnote/

A cross platform, command line note taking app built using python. Ability to add/remove tags & timestamp in notes. Supports Full text search based on content and tags & highlights the match if found. Encrypted the Database using AES-256 in CBC mode. Peewee used as ORM.

ACHIEVEMENTS & AWARDS

- Achievements SRM Search Engine got covered thrice in *Times Of India*, & by *Vasanth TV*.
 - Sponsored by PyCon Taiwan, 2017, to speak at the conference.
 - Recipient of Cloud Native Computing Foundation Scholarship to attend KubeCon North America, 2017.

TECHNICAL
TALKS GIVEN

- "Achieving repeatable, extensible and self serve infrastructure", Rootconf Hyderabad, India, 2019
- "Kingsly The Cert Manager", DevConf India, 2019
- "Enabling Canary deployments in k8s", DevopsDays India, 2019 (Lightening talk)
- "Kuberception: Self hosting kubernetes", DevOpsDays India, 2018
- "Diving deep on how imports work in Python", PyCon Taiwan June 2017
- "Introduction to Ansible", Bangalore Python User group April'17 Meetup
- "Demystifying how imports work in Python", ChennaiPy October'16 Meetup