

Tasdik Rahman

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WORK EXPERIENCE

New Relic, Berlin: *Senior Software Engineer, Cloud Platform* October, 2022 - Present

- Led the design & implementation, leading a team of 4 engineers across 3 time zones, to build scheduling abstraction for all the product teams, to declare their scheduling requirements in declarative manner, making it easier for them to schedule their applications to nodes with different features, in our multi-cloud environment cloud platform, via kubernetes admission webhooks, mutating webhooks and controllers. Presented the work at [ContainerDays, Hamburg, 2024](#).
- Contributing upstream, by adding new features and fixes to kubernetes-sig projects of [Cluster-API-AWS](#), [Cluster-API-GCP](#) and being part of [release team for Cluster API 1.9](#).
- Maintaining the internal forks of kubernetes-sig projects, [Cluster-API](#), [Cluster-API-AWS](#), [Cluster-API-GCP](#).
- Automating toil via writing kubernetes operators and webhooks using golang. Being oncall for our compute platform. Mentoring newer/junior engineers in the team, cut out work for the team by identifying streams of reliability work, charting them in our multi-quarter milestones.

DeliveryHero, Berlin: *Senior Systems Engineer, Logistics* July, 2021 - September, 2022

- Designing & executing from scratch, k8s upgrade automation for all 50+ k8s clusters managed by our team serving traffic for global services, 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](#).

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.

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 **Contributor:** *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

- First Class with Distinction, CGPA of **9.133/10**

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, Azure

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.herokuapp.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.

TECHNICAL TALKS GIVEN

- “**How to make pod assignment to thousands of nodes every day easier**”, ContainerDays, Hamburg, September 2024
- “**Keeping up with Kubernetes cluster upgrades**”, Kubernetes Meetup, Bangalore, September 2022
- “**TDD: An Experience report**”, Bangalore Ruby meetup, India, December 2020
- “**Achieving repeatable, extensible and self serve infrastructure**”, Rootconf Hyderabad, India, November 2019
- “**Kingsly - The Cert Manager**”, DevConf India, July 2019
- “**Enabling Canary deployments in k8s**”, DevopsDays India, December 2019 (Lightening talk)
- “**Kuberception: Self hosting kubernetes**”, DevOpsDays India, December 2018
- “**Diving deep on how imports work in Python**”, PyCon Taiwan, June 2017
- “**Introduction to Ansible**”, Bangalore Python User group Meetup, April 2017
- “**Demystifying how imports work in Python**”, ChennaiPy Meetup, October 2016