

Gunwant Jain

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Professional Experience

Ola Krutrim

Jan 2024 – Present

Platform Engineer (SDE 2)

Bengaluru, India

Kubernetes (Kubespray), Ansible, FluxCD, Istio, Cilium CNI, GPU Operator, Minio Operator, Mongo Operator, Redis Operator, Kubeflow, Knative, Prometheus, Loki-Stack, Grafana

- Engineered the infrastructure architecture for the MLOps platform utilizing Kubespray, FluxCD, GitHub, Cilium, Kubeflow, and Nvidia GPU Operator
- Deployed and maintained on-premises Kubernetes Clusters using Kubespray and Ansible
 - Successfully integrated MiG and non-MiG GPUs from a virtualized DGX into the Kubernetes Cluster
 - Implemented L2 Announcement-based IP discovery to overcome absence of a load balancer from the Infra team
 - Developed comprehensive IaC pipelines for managing the Kubernetes Cluster lifecycle
 - Created GitOps pipelines to streamline the lifecycle management of internal applications
 - Enhanced Observability through Prometheus and Loki, to scrape data from our internal services
- Architected and developed Data Pipelines across disparate networks spanning on on-prem infra for Collection, Extraction, Curation, and Annotation of 100GB data daily
- Designed and deployed an Annotation Tool enabling the team to process 4000 annotated data files per day

Dyte (YC W21)

Jun 2022 – Jan 2024

Site Reliability Engineer

Remote / Bengaluru, India

Kubernetes (EKS, GKE), Terraform, Golang, Helm, ArgoCD, AWS, GCP, Ansible, EdgeStack, Envoy, Caddy, Nginx

- Worked in a team of 4 to manage all of the infrastructure for Dyte's WebRTC and REST API services, also participating in on-calls actively
 - Led production multi-region EKS and GKE upgrades from version 1.24 to 1.27
 - Designed and deployed the company's multi-region Staging environment from the ground up on AWS
 - Spearheaded Cast AI integration on Kubernetes clusters, resulting in a 30% reduction in fund burn
 - Engineered Terraform modules for cross-region VPC peering on AWS cloud infrastructure
 - Spearheaded the adoption of External-DNS, also leveraging it for A/B Kubernetes cluster upgrades
 - Pioneered GPU-based workflows on Kubernetes, harnessing spot workloads for cost optimization
- Scaled Meeting Recordings - a core revenue driving service
 - Migrated a component service from AWS ECS to GCP GKE, enhancing scale capacity from 1000 to 8192 (+900%) parallel recordings
 - Architected authentication flows for AWS workloads on GKE clusters using Workload Identity Federation and OIDC
- Orchestrated the architecture and development of active monitoring probes, encompassing infrastructure provisioning via AWS Lambda, ECR, AWS EventBridge, deployment pipeline using GitHub Actions, and alerting through NewRelic Terraform modules and Atlassian Statuspage
- Maintained Deployte, a Go-based internal tool for provisioning the entire stack within Kubernetes namespaces for testing environments
 - Optimized Deployte's testing environment provisioning time from ~5 minutes to ~10 seconds, achieving a 30x improvement

Ecole Polytechnique de Montreal

Jun 2022 – Sep 2022

MITACS Research Intern

Montreal, Canada

Ansible, Hadoop, Python, Google Cloud Platform

- Developed Ansible playbooks to automate Multi-Cluster Hadoop setup on Google Cloud Platform
- Created InjectErr: A Python framework for injecting errors during HiBench workload execution on Hadoop and collecting logs for analysis

Gentoo Linux Foundation

Google Summer of Code Developer

May 2020 – Sep 2020

Remote

Android Open Source Project, Linux Kernel, Gentoo Userspace, Android Userspace, LLVM, LXC, Bash, Python, C++

- Enhanced SharkBaitOS, a Gentoo Linux userspace layer integrated between Linux and Android Userspace
- Extended SharkBaitOS compatibility to System-as-Root Android Devices (Android 9+)
- Expanded AOSP's LLVM toolchain by implementing an AArch64 native build target

Technical Skills

Platforms: Kubernetes, Terraform, Ansible, ArgoCD, FluxCD, Helm, Kustomize, Containers, AWS, GCP

Operating Systems: Linux Kernel, AOSP (Android Open Source Project)

Networks & Protocols: BGP, DNS, IMAP, SMTP, TCP, UDP, ARP, WireGuard, OpenVPN, IPinIP

Web Development: Golang, Rust, Flask, SvelteKit, Flutter

Programming Languages: Golang, Rust, Bash, Python, C/C++

Notable Projects

Flowdrive

Oct 2020

Java, Python, Linux System Administration, AWS, Docker, Sveltekit

- Collaborative project developing easy-to-install Advanced-Driver-Assistance-System software for various platforms including Mobile Phones, Desktops, and SBCs like Raspberry Pi and Jetson Nano with over 1800 stars on Github, and 3000 members on Discord
- Served as lead Systems and Infrastructure Engineer, optimizing esoteric software for Android OS and managing cross-compilation challenges
- Designed and implemented the entire AWS-based infrastructure
- Developed Flowinit, a Python-based init system for Flowpilot, managing all associated daemons
- Created a Flask-based backend to serve as the SaaS backbone
- Built Flicks, a SvelteKit webapp for user drive viewing and plan management
- Engineered Stitcher, a Golang microservice for converting user drive data into HLS streams

Unfold

Oct 2023

Golang (Gin), Reverse Engineering, SQLite, Ledger-cli

- Developed an CLI client for <https://fold.money>, enabling users to fetch banking transactions into an SQL database
- Implemented a Man-in-the-Middle approach to interact with Fold's app, circumventing the lack of a public API
- Integrated an internal cron job feature, allowing the CLI to function as a daemon for periodic transaction fetching

Bin

Aug 2020

Rust (Rocket), JavaScript, Docker

- Created a self-hostable Pastebin in Rust, supporting multiple file upload methods beyond text
- Optimized load times by 375% (from 300ms to 80ms) through effective caching implementation
- Designed a robust CI/CD pipeline using GitHub Actions, generating statically linked binaries for x86_64 and aarch64 architectures in parallel
- Garnered 200+ stars on GitHub

Achievements

[Globalink Research Intern, Ecole Polytechnique de Montreal](#)

2022, MITACS

[First Position \(National Winner\), GRiD 3.0 Hackathon](#)

2021, Flipkart

[Google Summer of Code Scholar](#)

2020, Gentoo Foundation

Education

[Thapar University, Patiala](#)

2019 – 2023

Bachelor of Engineering in Computer Engineering, CGPA: 8.01/10