

# HARSH MISHRA

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## SKILLS

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Programming Languages:	Python, Go, C
Cloud Providers:	AWS
Containers:	Docker, Podman, Buildah
Orchestration:	Kubernetes, AWS EKS
IaC Technologies:	Helm, Terraform
CI/CD:	Github Actions
Frameworks and Web Technologies:	Django, Flask, Microservices, Message Queues
Automation:	Python, Shell Scripting (Bash), Selenium, Web Scraping
Systems Administration:	Linux
Systems Programming:	Linux Kernel Modules, Kernel Debugging, Fuzzing
Databases:	MySQL, PostgreSQL
Interpersonal Skills:	Public Speaking, Attention Economy, Online Content Creation(Blogging, Youtube Talks...)

## EXPERIENCE AND VOLUNTEERING

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### Freelance DevOps and Cloud Architect

April, 2023 - Present

*Client: Tapan Halani, Independent DevOps and Cloud Consultant*

*Contact: +91 74050 98668*

*LinkedIn: <https://www.linkedin.com/in/tapan-halani-61b46a38/>*

- Established a robust CI/CD pipeline.
- Optimised existing GitOps workflows.
  - Implemented Build Caching for Docker Builds on GitHub Actions, resulting in a 50% reduction in build times.
  - Enhanced security and ease of implementation by implementing Keyless AWS sign-on in the GitHub Actions workflow.
  - Developed custom GitHub Actions for seamless EKS deployment.
- Optimized the cloud-based network stack on AWS EKS.
  - Reduced costs by optimizing the provisioning of AWS Load Balancer Instances.
  - Streamlined deployments by optimizing Helm Charts.

### Linux Kernel Mentorship Program - The Linux Foundation

*Linux Kernel Bug Fixing Spring 2023*

*Mentee*

March, 2023 - Present

- Working on the Linux Kernel release 6.4

### Data on Kubernetes Community

*DevRel / Community Management Intern*

Jan, 2023 - March, 2023

- Simplified the onboarding process for new Kubernetes community members by providing resources and assistance on Slack.
- Presented a talk titled "Understanding Messaging in Kubernetes: Why it Matters?" at "DoK Explorers' Day."
- [Link Here](#)
- Explored Operators in Kubernetes.
- Explored Message Queues in Kubernetes.

### Random Tinkering - My Personal Blog

*Technical Blogger*

- Authored blog articles on Kubernetes and other Cloud Native Technologies while sharing my learning journey.
- Aim to foster knowledge sharing and make these technologies more accessible to new learners.
- <https://randomtinkering.hashnode.dev/>

## Nibble Computer Society - JSSATE, Noida

Backend and DevOps Volunteer

May, 2022 - Present

- Developed Backends for Internal Projects of the Computer Science and Engineering Department
- Assisted in project deployments.
- Currently maintaining the following live projects:
  - [codepad.hacknics.in/](https://codepad.hacknics.in/)
    - \* Maintained a Django backend and deployed the application using Docker and Portainer
    - \* Manage a Traffic of 200-300 users/hr daily.
  - [techtrek.hacknics.in/](https://techtrek.hacknics.in/)
    - \* Annual Quizzing event: managed a traffic of 2000 users for 2 days.
    - \* Utilized Docker Compose to set up a Docker environment for deploying the web application.
    - \* Implemented NGINX as a reverse proxy to enhance performance and security.
    - \* Addressed security vulnerabilities to ensure user safety.

## PROJECTS

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**Microservices Project: Video 2 MP3** *Kubernetes, Docker, Flask, RabbitMQ, MySQL, MongoDB, Python* <https://github.com/harsh098/microservice-deploy>

Developed Microservices using Flask, RabbitMQ and Deployed them using Kubernetes and Docker. Added Reverse Proxy and Load Balancing using Kubernetes Ingress

**SIMF (Simple In Memory Filesystem)** *C, Fuse Library, Linux*

<https://github.com/harsh098/simple-in-memory-filesystem>

A FUSE (FileSystem in User Space) based filesystem written using C and FUSE library

**QuizAPI with Firebase Integration** *DjangoREST, Firebase*

<https://github.com/harsh098/quiz-REST-API-with-firebase>

An API that authenticates and authorizes users using Firebase and serves questions. The Django Admin Panel was customized to allow easy creation of quizzes.

**Social Book** *Django*

<https://github.com/harsh098/simple-in-memory-filesystem>

An Instagram-like social media website with Login/SignUp , Follow/Unfollow, Post feeds, User Search, Profiles, User recommendation, and Dashboard.

**Win32Spy** *Python, SMTP*

<https://github.com/harsh098/Win32Spy>

A Windows based simple multithreaded and a multiprocessing enabled spyware written as a hobby project . It consists of a keylogger, audio spy , screenshot grabber, system reconnaissance and a clipboard spy

## EDUCATION

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**JSS Academy of Technical Education**

Noida, UP

B.Tech Computer Science and Engineering *GPA: 9.2*

Nov, 2021 - Present

## AWARDS

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**Wolfram Award: - RUHacks 2022 Hackathon** Major League Hacking and Ryerson University, Toronto  
Organized by MLH(Major League Hacking) and Ryerson University, Toronto. Our Team's project (Organs4Health )was selected as Top-10 projects. We built a Discord Bot that fetched organ data from a database depending on organ availability for needy donees.  
May 2022