# KUNAL SINGH

#### Backend Developer

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#### **EDUCATION**

EXPERIENCE

## **Technocrats Group of Institution**

Computer Science & Engineering B.Tech.

November 2021 - August 2025

CGPA: 8.10

## Blupp Co. | Backend Developer Intern

June - July 2024

- Worked on Serverless application involving Cloudflare Workers and Other technologies like JavaScript, Go, NodeJS, TypeScript. PlanetScale.
- Worked on Go Backend application, designed for High Throughput.

#### SKILLS

 $\label{eq:conditional} \mbox{Programming Languages:} \quad \mbox{C}, \mbox{C}++, \mbox{GoLang}, \mbox{JavaScript}, \mbox{TypeScript}, \mbox{Rust}$ 

Libraries/Frameworks: HTML, CSS, React.js, Next.js, Express, Node.js, Tailwind CSS, Drizzle Tools / Platforms: Git, GitHub, Linux, Bash, Docker, Docker Swarm, Containers, Nginx, REST

Api, WebSockets, GraphQL, RabbitMQ, RPC and gRPC, Testing, Azure VM

Databases: SQL, PostgreSQL, MongoDB, Redis

### PROJECTS / OPEN-SOURCE

Melt-CD | Link Go, React.js, TypeScript (JavaScript), HTML / CSS, JSON, GitHub Actions (CI), Docker

- Continuous Development (CD) platform for docker swarm.
- Build a reliable CD application with GoLang to work with **docker swarm**, an alternative to **Kubernetes**.
- $\bullet$  It is based on  ${\it GitDevOps}$  technique, just like  ${\bf Argo\text{-}CD}$  for  ${\it Kubernetes}.$
- The **API** Server is build with **golang**, the **CLI** is also build with **golang** and the *admin UI* is build with **React.js**.

## Secops (Secure Operations) | Link

Rust, Tauri, Typescript, Ubuntu, React.js

- A Desktop application for Ubuntu Operating System to manage OS Security.
- Build with Rust, Tauri (a rust framework) and Typescript.
- Using secure technique to authenticate like **pkexec**, and its completely offline to make it more secure.
- Manages hardware security like *Blocking of camera*, *Bloking of USB Port* etc. And other system security technique such as **Firewalls**, **SSH** can be enhanced.

#### Image Server | Link

Go, SQLite, Docker, HTML/CSS, JavaScript, Azure

- Designed and developed a self hosted Image Server, which can be used in online forums, like blogs, articles. It can be used as a microservice to add image serving capability, alternative to AWS S3.
- An image server is web server software which specializes in delivering (and often modifying) images
- It can be self hosted using **Docker**
- Deployed on Azure VM via Nginx

#### Portfolio Website | Link

Next.js, React, TypeScript, Shadon UI, Tailwind CSS, Meilisearch

- My portfolio website serves as a comprehensive showcase of my skills and achievements.
- Through a collection of projects, I demonstrate proficiency in full stack development.

## Honors & Awards

Lead the Team which won 2nd price in Hackathon organized by NRI Group of Institutions, Bhopal

2 Year 1st rank and this year 2nd rank Winner of CodeCrunch (Annual Programming contest at TIT Group.)