# KUNAL SINGH

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### EDUCATION

### **Technocrats Group of Institution**

Computer Science & Engineering B.Tech. CGPA: 8.10

November 2021 - August 2025

EXPERIENCE

#### Blupp Co. | Software 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

Programming Languages: C, C++, GoLang, JavaScript, TypeScript, Rust, Python (Basic)

Libraries/Frameworks: HTML, CSS, React.js

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**.
- It is based on GitDevOps technique, just like Argo-CD for 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

#### Netgres | Link

GoLang, Tailscale, Wireguard VPN

- Netgres is a work in progress application for creating personal network password manager secret directory on top of Wireguard VPN.
- It creates a private network using an individual's own devices, aiming to provide the accessibility of cloud-based password managers while maintaining personal control over data storage.

## 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.)