Ved Ratan

✉ vedratan10@gmail.com ✆ Mobile: +91-8887624467 in Ved Ratan ⌗ VedRatan ⊕ Portfolio

EDUCATION

- **Indian Institute of Information Technology(IIIT), Gwalior** — Madhya Pradesh, India
  Bachelor of Technology - Computer Science and Engineering — *2020 Aug - 2024 May*
  CGPA 7.2/10

EXPERIENCE

Associate Software Engineer - Rakuten India   July 2025 - Present

- Implemented the **ENS (Event Notification Service)** on Vector(Datadog), achieving **30k QPS** end-to-end throughput across Kafka source and sink pipelines.
- Developed a **Go-based load generator** capable of producing **90k QPS** with **Kerberos authentication**, used for performance and stress testing of ENS.
- **Technologies:** Golang, Kafka, Kerberos, Jenkins, Bitbucket.

SWE Intern - Nirmata   Apr 2024 - March 2025

- Developed an **offline cluster scanning** feature in Nirmata's CLI, enabling **local security policy validation** without SaaS dependencies—reducing **onboarding time by 50%**, expanding support for **100% of air-gapped environments**.
- Customized Nirmata's platform for **on-prem deployment**, cutting client's external dependency by **100%**.
- Automated vuln scanning across **10+ repos** with Slack alerts, reducing critical CVE fix time by **80%**.
- Implemented repo-scanning in Nirmata's CLI, enabling Kyverno policy validation for private/public repos and benefiting **70% of customers**.
- Enabled scanning of helm, K8s workload YAML located on **GitLab, Bitbucket, and self-hosted VCS** and improved performance by reducing scan time **83% (2 min → 20 sec)**.
- **Technologies:** Golang, Grype, Trivy, Helm, Kubernetes.

SWE Intern - AccuKnox   Oct 2023 - Apr 2024

- Enhanced Nimbus (an intent-based security platform) by integrating a Kubernetes adapter powered by Kyverno, expanding **5G threat detection coverage by 2x** while ensuring real-time compliance.
- Authored 6+ security intents for 5G blueprints, mitigating **10+ attack vectors**.
- Automated native policy generation **reduced remediation time by 65%**, hardening 5G network security.
- **Technologies:** Golang, Kubernretes, Kubernetes Security.

Linux Foundation Mentorship LFX'23 Contributor - Kyverno   June 2023 - Aug 2023

- Built a Kubernetes controller to auto-cleanup unused resources, **reducing cloud waste by 15%**.
- Scaled Kubernetes controller to handle **2,000+ resources concurrently**, ensuring high performance in production environments.
- Utilized Golang for **concurrent implementation**, ensuring **thread safety**, and preventing **resource leakage**.
- **Technologies:** Golang, Kubernetes, Kyverno.

SKILLS SUMMARY

- **Languages**: Golang, C/C++, Java
- **Databases**: MySQL, Postgres, MongoDB, Redis
- **Technologies**: Docker, Kubernetes, ArgoCD, Helm, Vector(Datadog), Kafka, Kerberos
- **Frameworks**: SpringBoot

PROJECTS

K8sWatchDog:

- A Kubernetes-native tool that integrates **K8sGPT** to automatically detect and remediate faulty resources in real time, improving cluster reliability and reducing manual intervention.
- Controller auto-remediates faulty resources using K8sGPT CRDs and AI, **reducing incident resolution time by 40% and manual effort by 70%**.
- **Technologies:** Golang, GitLab CI/CD, Docker, Kubernetes, ArgoCD.