

Ved Ratan

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🌐 Ved Ratan

🔄 VedRatan

🌐 Portfolio

EDUCATION

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

EXPERIENCE

- Associate Software Engineer - Rakuten India** July 2025 - Present
 - Designed and built a **centralized cookie management service** using **Kotlin and Vert.x**, leveraging reactive programming for non-blocking I/O and high-throughput request handling.
 - Implemented **event-driven, asynchronous** workflows with Vert.x to efficiently manage legacy cookie lifecycle, ensuring scalability and low latency under load, following **clean architecture**.
 - Developed a **Go-based load generator** capable of producing **90k QPS** with **Kerberos authentication**, used for performance and stress testing of ENS.
 - Implemented the **ENS (Event Notification Service)** on Vector(Datadog), achieving **30k QPS** end-to-end throughput across Kafka source and sink pipelines.
 - **Technologies:** Golang, Kotlin, Vert.X, 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.