# **Shreyas Rao**

# Senior Software Engineer

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Platform Engineering Leader with **7 years of experience** designing and scaling resilient **distributed systems** in cloud-native environments. Deep expertise in **Kubernetes**, **Golang** and **Performance Engineering**, with proven ability to lead teams, drive architectural decisions, optimize system reliability, and foster collaboration and engineering excellence. Australian citizen eligible for an <u>E-3 visa</u> to work in the US.

### **WORK EXPERIENCE**

# **Senior Software Engineer**

August 2018 - Present

SAP Labs, India

- Architected and engineered into production core modules of <u>Gardener</u>, an open-source Kubernetes-Clustersas-a-Service platform, orchestrating 10,000+ clusters across AWS, GCP, Azure and Openstack.
- Directed the design and rollout of high availability for Gardener Kubernetes control planes to improve uptime from 96% to 99.5%, while optimizing operational costs by \$300K+ annually.
- Designed robust backup and restore solutions using Golang based Kubernetes operators (<u>Etcd-druid</u>, <u>Etcd-backup-restore</u>), safeguarding 400TB+ of critical cluster data and eliminating data loss incidents.
- Achieved RPO of 5 minutes and reduced RTO from 12 hours of 30 minutes for Kubernetes clusters.
- Established software engineering best practices, including pair programming, test-driven development, and CI/CD enhancements, boosting test coverage from 40% to 90% and reducing production issues by 60%.
- Incorporated monitoring tools like Prometheus, Grafana and AlertManager to identify cluster issues 5x faster.
- Enhanced operational efficiency via Kubernetes CRDs to reduce debugging time by 20% and drive resolution
  of critical incidents during Developer-on-Duty (DOD) rotations.
- Exhibited senior-level leadership since 2022, by leading team of 4 developers, mentoring 6 junior engineers, and driving architectural decisions around disaster recovery that delivered \$100K in cost savings, leading to official promotion in 2024.

# LEADERSHIP EXPERIENCE

### Team Lead, Gardener

April 2020 - Present

SAP Labs, India

- Pioneered recruitment efforts for the team by interviewing 50+ external candidates to expand team size from 2 to 20, achieving a remarkable 900% growth within two years.
- Owned project management for the team, streamlining sprint planning to boost PR churn rate by 50%.
- Mentored 6+ new team members while streamlining the project onboarding process, accelerating integration
  into team culture, and cutting onboarding time by over 50%.
- Spearheaded presentation efforts at international KubeCon events and Kubernetes Meetups,
   spanning across US, Europe and India, showcasing Gardener's cloud-native innovations to 1000+ attendees.

## **SKILLS, CERTIFICATIONS & PUBLICATIONS**

**Skills** – Golang, Python, Kubernetes, Docker, Etcd, Distributed Systems, System Design, Cloud Computing, Linux, GitHub, DevOps, CI/CD, Helm, Terraform, Prometheus, Grafana, AWS, GCP, Azure, Openstack

Certified Kubernetes Administrator - Linux Foundation, December 2020 - Present

SAP Leadership Academy - SAP Labs India, August 2024

"Bodhisattva – Rapid Deployment of AI on Containers" – a technical paper describing a mini PaaS for AI training, inference and serving, IEEE CCEM 2018

### **EDUCATION**