

SASHANK AGARWAL

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EDUCATION

UNIVERSITY OF SOUTHERN CALIFORNIA | Los Angeles, CA May 2025 (expected)

Master of Science in Computer Science (MSCS) | GPA: 3.5/4.0

Relevant Courses: Analysis of Algorithms, Database Systems, Web Technologies, Advanced Operating Systems

RAMAIAH INSTITUTE OF TECHNOLOGY | Bangalore, India

August 2020

Bachelor of Engineering in Computer Science and Engineering | GPA: 3.96/4.0

Relevant Courses: Algorithms, Data Structures, Operating Systems, Distributed Systems, Web Technologies, Cloud Computing

SKILLS

Programming: Go/GoLang, Java, Python, NodeJS, Scripting (Shell, Bash), Web Development (HTML, CSS, JavaScript)
Databases: MySQL, MongoDB, NoSQL, Firebase, PostgreSQL
Cloud Technologies: Containerization (Docker, Kubernetes), AWS (EC2, VPC, S3), OpenShift, Prometheus, Networking (subnets, load balancers, security groups), Security (IAM roles, Encryption), CloudWatch, Terraform, CFT
Miscellaneous: Git, Kafka, Redis, gRPC, CI/CD pipelines (Jenkins, GitHub Actions, ArgoCD), Open Policy Agent (OPA)
Core competence: Agile/Scrum, Problem-Solving, Detail-Oriented, Strong Teamwork, Communication

WORK EXPERIENCE

INTUIT | Software Engineer 2 | Bangalore, India June 2022 – July 2023

- Actively contributed to the Intuit Kubernetes Service team, taking charge of the efficient management of their cloud infrastructure and platform utilizing Kubernetes and Go, leading to a 15% reduction in infrastructure costs.
- Managed observability stack, including Prometheus metrics and Wavefront dashboards helping in cloud cost optimization.
- Improved the availability and scalability of applications on Intuit's clusters by actively contributing to the open source project 'keikoproj', focused on alert-manager and active-monitor, resulting in a 20% decrease in system downtime.
- Automated functional testing procedures, resulting in a 40% reduction in manual testing effort and ensuring more reliable software releases using Jenkins.
- Administered technical interview sessions to evaluate candidates' abilities and participated in a rotating weekly on-call schedule to offer assistance with the cloud platform.

RED HAT | Associate Software Engineer | Bangalore, India

November 2020 - May 2022

- Actively oversaw the monitoring and alerting of large-scale logs in OpenShift, utilizing Elasticsearch, Fluentd, and Kibana for efficient log management, resulting in a 25% reduction in log processing time.
- Developed troubleshooting runbooks for Elasticsearch and Kibana alerts, reducing maintenance work for SREs by 20%.
- Developed and maintained the Loki Operator in collaboration with the Grafana team. Implemented key components such as auto-scaling, alerting, authentication, and authorization for Loki.
- Launched a storage calculator for Loki, predicting log volume in 24 hours and recommending resource requirements for the LokiStack, which led to a 15% reduction in unnecessary resource allocation and cost savings.

PROJECTS

Learning Python for DevOps | github.com/sasagarw/python-devops-learning December 2023

- Developed and implemented a Lambda function in Python using Boto3 library to identify and remove stale EBS snapshots, optimizing storage costs on AWS. Implemented logic to detect snapshots not associated with active EC2 instances, volumes and performed deletion for efficient storage management.
- Automated Jira ticket creation from GitHub comments using Python. Deployed a Flask-based Python application on AWS EC2, configured with a webhook for GitHub triggers, enhancing automation and streamlining the ticketing process.
- Configured Terraform for AWS, managing cloud resources with customized attributes. Implemented S3 backend for remote state storage. Created reusable infrastructure using Terraform modules and managed environments with Terraform workspaces. Integrated Terraform with HashiCorp Vault for secure secret management.

RIT Data Center | github.com/sasagarw/RIT-Data-Center

December 2019

- Developed and maintained a college website generating dynamic reports and securely managing college data in a centralized database. Mainly utilized by the Principal and Professors from all departments.
- Technology: HTML, CSS, JavaScript, Bootstrap, NodeJS, ExpressJS.

ACHIEVEMENTS

- Elected as **Deputy of Technology** at USC AIS - overseeing the configuration of technical elements for events, resolving technical challenges, executing mass email communications, and maintaining the AIS website. August 2023 - Present