YUVA SRI VEMULAPALLI

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ABOUT ME

Cloud Infrastructure and DevOps Engineer with **5+ years** of experience supporting production cloud infrastructure and distributed systems across AWS and GCP. Expertise in designing **cloud network architectures**, implementing Infrastructure as Code using **Terraform**, and maintaining **highly available** production systems with **CI/CD** automation. Skilled at troubleshooting complex cloud and networking issues using **monitoring** and **logging** platforms while collaborating in **Agile environments** to deliver reliable, scalable cloud solutions.

EXPERIENCE

Cloud Infrastructure and DevOps Engineer - *Cognizant - [Dollar Tree], USA* *Aug 2024 - Present*

- Designed and implemented a **VPC** network across **3 environments** using **CIDR ranges** and **subnet** segmentation, enabling the platform to support **30+** microservices and data pipelines without IP conflicts as the system scaled.
- Built hybrid connectivity between **on-premise** data centers and Google Cloud using **Cloud VPN** and **Interconnect**, enabling secure transfer of daily inventory and transaction data for **200+** retail locations into cloud analytics pipelines.
- Implemented global HTTPS **load balancing** and internal load balancers to route traffic across **GKE workloads** running in **2 regions**, allowing the platform to handle peak loads of **~15k requests per minute** during seasonal sales.
- Configured **Cloud NAT** and private networking for compute workloads, allowing **30+** containerized services to access external APIs without exposing instances to public IPs, and improving network security posture.
- Managed **Cloud DNS** zones and internal DNS records supporting **15+ service endpoints**, improving service discovery and simplifying communication between microservices and backend APIs.
- Established **VPC peering** or **shared VPC** architecture across **8 cloud projects**, enabling centralized network management while allowing multiple development teams to deploy services independently.
- Automated infrastructure provisioning using **Terraform**, creating reusable modules for **VPCs, subnets, firewall rules, load balancers,** and routing policies, etc reducing approximately **600+ lines** of repetitive configuration across environments.
- Designed **Disaster Recovery** architecture for DT Mobile App, collaborating with Senior Cloud Engineers, Google DR customer engineers, and App teams, by planning global load balancing and ensuring multi-region support for critical data services like **Storage, PubSub, and Firebase**, which will automatically fail-over between regions.
- Troubleshot production networking issues **on-call** using **VPC Flow Logs, Cloud Monitoring, and DNS diagnostics**, resolving routing and DNS latency issues that affected several customer-facing services during the year-end sales.

Research Assistant - AI Full Stack - *Virginia Tech, VA, USA* *May 2023 – Aug 2024*

- Developed a **Python-based AI** assistant to analyze chemistry research papers, using **GPT 4** and **Llama 3** LLMs to extract key experimental details like reaction conditions and catalysts, enabling faster literature review for research projects.
- Built a **RAG** that allowed researchers to query uploaded research papers and lab documentation using natural language, improving accessibility of technical information across the research group.

Software Engineer - *TCS - [ASDA, Telefonica], TN* *Jul 2021 – Dec 2022*

- Automated infrastructure provisioning using **Terraform** across Azure environments, reducing deployment time by 60% and improving configuration consistency.
- Implemented **RBAC, IAM** policies, and multi-factor authentication across cloud systems, reducing security risks by 45%.
- Built serverless automation workflows using **Azure Functions** to improve operational efficiency and reduce manual intervention by 40%.
- Configured monitoring and alerting using **Azure Monitor** and log analytics tools, improving system visibility and reducing downtime by 30%.
- Supported Linux-based infrastructure environments and performed **RCA** to improve long-term system stability.

SKILLS AND CERTIFICATIONS

Programming Languages: Python, Bash, JavaScript, Java

DevOps & Automation: Linux, Terraform, GitLab CI/CD, Docker, Podman, Kubernetes

Cloud Platforms: GCP, Azure, AWS

Observability: Google Cloud Monitoring and Logging, Datadog, Azure Monitor, AWS CloudWatch

Certifications: Google Professional Cloud DevOps Engineer, **Azure** Security Expert (AZ-500), Identity and Access Administrator Associate (SC-300), Introduction to **AI**, **CCNA**-1,2 (Cisco)

EDUCATION

Masters in Computer Science and Applications, *Virginia Tech (CGPA: 4/4)* *Blacksburg, VA, USA*