NIRANJAN MADHAVAN D

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EXPERIENCE

Systems Development Engineer - Google, India　　　　　　　　　　　　　Bangalore, India
GCP - Google Distributed Cloud Hosted - Hardware as a Service　　　　　　May '24 - present
- Engineered a metric-driven hardware validation system for Google's private cloud, accelerating client deployments by 30% and reducing deployment failures by 40%.
- Developed exporters for diverse hardware devices, enabling Prometheus metric collection via accessible endpoints.
- Collaborated with cross-functional teams to integrate the validation suite into existing build processes, streamlining operations.
- Authored technical documentation and runbooks to enable rapid issue triage.
- Skills: **Go**, **Kubernetes**, Helm, OCI, **Prometheus**, **Grafana**, Linux.

Site Reliability Engineer II – Cisco, India　　　　　　　　　　　　　Bangalore, India(Remote)
Network Engineering and Operations - Infoblox DNS Integration　　　　　　Feb '22-Mar '24
- Spearheaded the modernization of a legacy IP Address Management (IPAM) solution by migrating it to the cutting-edge Infoblox (TPS) platform, boosting system security, accountability, and streamlined maintenance.
- Architectured and implemented a high-performance **event-driven** DNS backend system, handling millions of events per day.
- Achieved a 15% performance gain by strategically eliminating a critical dependency.
- Automated incident resolution for a recurring pattern, slashing Mean Time to Resolve (MTTR) by 80%.
- Engineered a session-aware rate limiting mechanism, mitigating cascading failures and horizontal scaling bottlenecks, resulting in a 32% reduction in service disruptions.
- Resolved a root-cause authorization issue, leading to a 50% decrease in related incidents.
- Implemented proactive traffic monitoring and alerting system via Splunk Dashboards enabling faster issue detection and resolution.
- Devised and implemented Runbooks to efficiently delegate incidents, streamlining the incident management process.
- Ensured data integrity during the migration of over 3.5 million records, meticulously bridging data gaps
- Skills: **Python**, Perl, ServiceNow, **Distributed Systems**, **Docker, Kubernetes**, Linux, DNS, DHCP, **Logging**, SQL, Splunk, **CI/CD.**

Site Reliability Engineer I – Cisco, India　　　　　　　　　　　　　Bangalore, India(Remote)
Network Engineering and Operations - Metrics, Visualization and KPIs　　　Aug '21-Jan '22
- Developed visually compelling KPI dashboards aligned with business requirements empowering users with data-driven decision-making using real-time insights and actionable information.
- Initiated and drove end-to-end data pipeline, culminating in dynamic dashboards that enabled high-level monitoring of a critical initiative to reduce network ACLs.
- Skills: Grafana, Kafka, Observability, Data Storytelling.

Site Reliability Engineer Full-Time Intern – Cisco, India　　　　　　Bangalore, India(Remote)
Network Engineering and Operations - Automation Powerhouse　　　　　　Feb '21-Jun '21
- Revamped the front-end of a centralized vulnerability management system to expedite issue resolution and establish transparent SLAs.
- Skills: Angular, **Typescript, MongoDB**, MEAN stack, Test driven development.

Research Assistant – Manipal Institute of Technology　　　　　　　　　Manipal, India
Software Defined Networks (SDN) -Security　　　　　　　　　　　　　Jan '20- Jul '21
- Implemented a Statistical Intrusion Detection Algorithm to effectively detect anomalous network traffic, especially DDoS attacks.
- Introduced the algorithm using DPDK enabled Open vSwitch connected to the SDN controller.
- Skills: Networks, Docker, Statistical analysis.

AWARDS AND RECOGNITION

- Received Amaze 2 award for 'Driving the highest level of achievement' for driving the Infoblox integration project at Cisco.

SKILLS & INTERESTS

- **Programming Languages:** Python, Go, Typescript, SQL, Perl.
- **Technologies/Tools:** Docker, Kubernetes, Jenkins, Gitlab, Ansible, Terraform, GCP, Splunk, Prometheus, Grafana, Git, Linux.
- **Core skills:** Distributed Systems, Site Reliability Engineering, Network Automation, Observability.

PROFESSIONAL TRAINING

Cisco, Coursera
- Cisco Certified Devnet Associate
- DeepLearning.AI TensorFlow Developer Specialization
- Big Data Specialization

EDUCATION

Manipal Institute of Technology, MAHE　　　　　　　　　　　　　　Manipal, India
- Bachelor of Technology in Computer and Communication Engineering. **CGPA-8.5**　　Aug '21
- Coursework**:** Data Structures and Algorithms, Networks, Database Management, OS, OOP, Big Data, Cyber Security.