

NIRANJAN MADHAVAN D

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EXPERIENCE

Systems Development Engineer - Google, India

Bangalore, India

Google Distributed Cloud Hosted - Hardware as a Service

May '24 - present

- Engineered a metric-driven hardware validation system for Google's private cloud, improving reliability, reducing toil and accelerating client deployments while guaranteeing hardware quality.
- Partnered 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.
- Learned: 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.
- Architected and implemented a high-performance event-driven DNS backend system, with local caching for efficient processing.
- 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
- Learned: Python, Perl, ServiceNow, Distributed Systems, 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.
- Learned: 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.
- Learned: Angular, 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.
- Learned: Networks, Docker, Statistical analysis.

Intern - Mobius Knowledge Services

Chennai, India

Machine Learning Division

May '19-Jul '19

- Accelerated lead generation process by implementing an end-to-end machine learning pipeline to automatically generate leads from webpage inputs, resulting in a 60% increase in efficiency over previous manual methods.
- Learned: Neural Networks, Image Processing, Natural Language Processing

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, SQL, Go, Perl, C/C++, Java, JavaScript.
- Technologies/Tools:** Docker, Kubernetes, Jenkins, Gitlab, Ansible, Terraform, GCP, Splunk, Prometheus, Grafana, Git, Linux.
- Core skills:** 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**
- Coursework: Data Structures and Algorithms, Networks, Database Management, OS, OOP, Big Data, Cyber Security.