

## Contact

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(LinkedIn)

## Top Skills

Continuous Integration and Continuous Delivery (CI/CD)

Root Cause Analysis

Causal Analysis

## Languages

Tamil (Native or Bilingual)

Hindi (Professional Working)

Sanskrit (Elementary)

English (Full Professional)

## Certifications

Network Developer Group - Linux Essentials

Internet of Things

Cisco Certified Network Associate Routing and Switching (CCNA)

Code Warmers club

IEEE Winter School on Computational Intelligence and its applications

## Honors-Awards

Winner Project Display

Solicitude Award

YSKBV Award

Nominee - Panickker Award

Google India Challenge Scholarship Recipient

## Publications

IoT based Control and Management of Thermal Power Plants for Robust Operation

IoT in Power Systems

# Harish Ananda Ramanujam

Software Engineer at Viasat Inc.

San Diego, California, United States

## Summary

I enjoy bringing in Network Automation and Programmability for Global Infrastructure. I get my hands on design, implementation, testing, deployment, and operating network automation systems.

I'm multi-faceted and so like to solve challenging problems by working on non-conventional solutions.

Some of the skills that I like to keep me updated are Routing & Switching (BGP, MPLS, OSPF, EVPN, Vxlan, etc), DevOps (CI/CD, Jenkins, Git), Programming (Python, Go, Vuejs), Virtualization (Docker, Kubernetes, OpenStack), Cloud (AWS) and Security (Firewall, Penetration Testing)

## Experience

Viasat Inc.

4 years 6 months

Software Engineer - II

January 2022 - Present (3 years 6 months)

Carlsbad, California, United States

MLOps, Intent-Based Networking, Self-Driving networks, Network Reliability Engineering

Software Engineer

January 2021 - January 2022 (1 year 1 month)

Carlsbad, California, United States

Northeastern University

Instructional Assistant

September 2020 - December 2020 (4 months)

Boston, Massachusetts, United States

Global Resilience Institute

Security Engineer - Cyber Resilience

January 2020 - December 2020 (1 year)

Boston, Massachusetts, United States

- Created and maintained VPC on AWS with EC2, ELB, S3, EBS, Route53, Cloud Watch, Auto Scaling, and Lambda based on the project requirements.
- Automated the Replication process using Cloud Formation/Terraform to replicate multiple environments based on client requirements.
- Configured MFA server and Microsoft AD to implement 2 step authentication using Duo for AWS Workspace
- Hosted Nginx, Open VPN, SIEM and Postfix servers and Managed security groups, Network ACLs for cloud security
- Implemented VDI infrastructure using Zero Client over PCoIP in AWS cloud which significantly decreased deployment and scaling time
- Evaluated cloud infrastructure against FedRAMP and NIST compliance frameworks. Performed Penetration testing and system hardening of Linux, Windows-based operating systems to ensure system stability and security
- Proficient with containerization and orchestration using Docker and Kubernetes
- Used Ansible and Ansible Tower as a Configuration management tool to automate repetitive tasks
- Analyzed multiple cloud security products and generated a Vendor-comparison matrix with 50+ criteria. This makes it easier for US Electric utility companies and Regulators to make informed decisions on products that meet their security needs.

## Charles River Development

Network Infrastructure Engineer

July 2019 - December 2019 (6 months)

Burlington, Massachusetts

- Implemented IEEE 802.1x based NAC (Network Access Control) on both wired and wireless networks by defining Roles replicating firewall policies with services and rules for granular control of 3000+ end devices.
- Configured Juniper SRX1500 firewall with Security Zones, Address books, Policies, DHCP pool, NAT/PAT for isolating guest network.
- Configured both policy-based and route-based VPN tunnels for Juniper-Juniper and Juniper-Cisco environments using traffic selectors on SRX1500.
- Configured 60+ Extreme switches (x440, x450, x670) with Stacking, LACP, VLAN, LLDP, ELRP, VOIP, SNMPv3, MLAG, DHCP snooping.
- Designed, Configured and Troubleshooted NAC Engines for Enterprise RADIUS authentication using SSL/TLS Machine Certificates and integrated with Active Directory to set Roles depending upon AD Attributes.

- Managed AD security groups and enforced required 802.1x LAN/WLAN settings through group policies.
- Monitored and remediated various security vulnerabilities in the network through Access control lists, installed Sophos AV for Firewall, Digital guardian to prevent data theft in Windows systems.
- Diagnosed and Resolved various issues with VLAN, STP, Trunk, and IP subnet issues through a ticketing system.
- Coordinated an Office and Datacenter migration by setting up core network infrastructures - Designed, Configured and Tested the Core switches, SAN networks, Corporate Firewalls, WiFi APs for the new environment well in advance to reduce the downtime.

## National Institute of Technology Karnataka

Software Engineer : Summer Intern

May 2017 - July 2017 (3 months)

Mangalore Area, India

- Developed a proprietary communication protocol to diminish the probability of error and time delay in the data link layer by improving coding techniques with mathematical and programming competency
- Integrated and Implemented CRC, Cryptographic Hash functions, ARQ and Hybrid schemes on the internal network infrastructure to analyze data integrity and optimal efficiency and achieved 85% more reliable error-free high-speed data transmission
- Created reusable code in python to replicate network environment and automated the configuration process for more than 500 devices. Scripted to apply dynamic ACL on device interfaces.

## Bharat Sanchar Nigam Limited

Under Graduate Intern

July 2016 - July 2016 (1 month)

Chennai Area, India

During my association with BSNL, I was responsible to determine and implement methods, process improvements to enhance network capability and examined load patterns for Chennai (metropolitan city) to increase service yield. I was also responsible for examining the interoperability of several Internet Security Protocols over VVOIP to void intruders

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## Education

Northeastern University

Master of Science - MS, Telecommunciation Networks · (2018 - 2020)

Anna University

Bachelor of Engineering (B.E.), Electrical and Electronics  
Engineering · (2014 - 2018)