

RAVI KUMAR REDDY K

+91-7411340221 • ravikumark815@gmail.com • [LinkedIn](#) • [GitHub](#) • [Leetcode](#)

SUMMARY:

- ★ **Software Developer** with extensive experience of **8+ years** in developing System Platform Software, Network Datapath, Applications and Tools for Next Generation Firewalls (NGFW), Switches and Access points.
- ★ Proficient in Layer 2, 3, 4 & 7 networking, Network Security, Cloud Computing, Virtualization, Containerization, Linux Internals, Software Architecture, with a keen grasp of latest technologies.
- ★ Adept in design, configuring, developing, and troubleshooting of diverse vendor firewalls, routers, and switches.
- ★ Committed to fostering collaboration among Engineering, QA, and Support teams to implement system-level improvements that benefit end-users.

SKILLS & TECHNOLOGIES

- *Programming:* C, CPP, Python3, Bash, JavaScript, Terraform, REST, JSON, XML
- *Cloud Computing:* AWS, Azure, GCP, Oracle Cloud (OCI), Alibaba Cloud
- *NFV:* KVM, VMware, DPDK, VPP
- *Containerization:* Docker, Kubernetes
- *Network:* TCP/IP, Network Security, NAT, High Availability, SSL/TLS, VPN, Routing and Switching
- *Tools:* Git, Perforce, Jira, Confluence, Target Process, Agile, Windows, Linux

EMPLOYMENT

- | | | |
|--|-----------------------|--------------------------------|
| Software Engineer | Cisco Inc. | August 2020 – Till Date |
| <ul style="list-style-type: none">• Developed new features for Cisco ASAc (Containerized firewalls) and integrated with SFCN using C, Docker, and Kubernetes.• Added support to Broadcom NetXtreme and Mellanox Connect X-5 [DPU] virtual NIC cards for Cisco ASAv and FTDv deployments in Oracle Cloud Infrastructure (OCI) with SR-IOV support.• Resolved several Performance issues, NIC underruns, hot-plugging issues, core dumps, memory leaks, CPS/PPS issues on ASAv and FTDv deployments Public and Private Cloud platforms.• Designed and developed horizontal autoscaling support for ASAv deployments in Alibaba Cloud using Python3 and Terraform.• Migrated Virtual firewall deployments in Azure from Python2.7 to Python3.9 using Azure Linux Agent.• Enhanced debuggability and serviceability of virtual firewalls by implementing logging commands and tac reports.• Resolved issues as part of upgrading underlying Wind River Linux OS and FXOS.• Collaborated with fellow engineers on pipeline creations, code reviews, functional specification reviews and process enhancements. | | |
| Software Development Engineer | Red Piranha | May 2020 – August 2020 |
| <ul style="list-style-type: none">• Developed features for Crystal Eye, a Linux network operating system running on firewalls including SSLVPN Module enhancements like LDAP Integration, Static IP configurations, SSL Perceive and Bump.• Designed system specifications for SSLVPN features.• Collaborated with colleagues on code reviews via git workflow, test case development, documentation, and process enhancements. | | |
| Software Development Engineer | SonicWall Inc. | June 2015 – April 2020 |
| <ul style="list-style-type: none">• Designed and developed several features for SonicWall's comprehensive network security products and solutions.• Integrated SonicWall Switches with Firewalls, simplifying end-user monitoring via a unified management interface.• Resolved various issues in SonicOS, including Wire Mode Interfaces, Log Monitoring, FTP Logging, and more.• Created CLI and API interfaces to configure Flow Reporting, ARP Storm Limit and AWS Integration of Firewalls.• Designed and developed web applications for log analyzers namely TSR Analysis Tool, EXP Viewer that parse various sections of log files using Python3 and Regular Expressions.• Developed Migration Tool using Python3 for customers of other vendors namely, Cisco, Check Point, Juniper, Fortinet, Palo Alto, and so on to migrate easily to SonicWall. URL: https://migratetool.global.sonicwall.com• Replicated customer environments, using virtualization and various network technologies, to diagnose and resolve firewall issues. | | |

EDUCATION

- **Master of Technology** in Software Systems – Security from **Birla Institute of Technology and Science (BITS)**. 2021 – 2023
- **Bachelor of Engineering** in Computer Science & Engineering from **Visvesvaraya Technological University**. 2011 – 2015

CERTIFICATIONS & COURSES:

- [Oracle Certified Cloud Infrastructure Foundations Associate](#) (Feb 2022)
- [SonicWall Network Security Administrator](#) (SNSA – License # bd75d8d8051084bcbcf26328e7caff60)
- Linux Kernel Debugging, Device Drivers, Process Management, Scheduling and Memory Management. (Cisco Internal Course)
- Cisco Certified Networking Associate (Cisco Internal Course)

ACHIEVEMENTS:

- Cisco Connected Recognition Award for extensive work on VirtIO issues (Feb 2022)
- Cisco Connected Recognition Award for SR-IOV Support (March 2021)
- SonicWall Outstanding Contributor (FY 2020)