

# RAVI KUMAR REDDY K

+91-7411340221 • [ravikumark815@gmail.com](mailto: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

- 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

- 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

- 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 VirtIO issues (Feb 2022)
- Cisco Connected Recognition Award for SR-IOV Support (March 2021)

- 
- SonicWall Outstanding Contributor (FY 2020)