

RAVI KUMAR REDDY K

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SUMMARY:

- **Software Developer** with a Masters in Software Systems and an extensive experience of **8+ years** in developing System Platform Software, Network Datapath, Applications and Tools.
- Proficient in **Layers 2,3,4&7 networking, Network Security, Virtualization, Cloud Computing, Linux Internals, Containerization, Software Architecture**, with a keen grasp of latest technologies.
- Hands-on experience in design, configuration, development, and troubleshooting of diverse public and private cloud platforms and networking products including firewalls, routers, and switches.
- **Collaborative team player** experienced in fostering relationships across cross-functional teams, contributing effectively to collective objectives, and achieving successful project outcomes.
- **Highly adaptable professional**, adept at active listening, encouraging open dialogue, and valuing diverse perspectives within team settings, contributing to cohesive and productive work environments.
- Adept at developing diagnostic tools and utilities to troubleshoot issues efficiently.

SKILLS & TECHNOLOGIES

- **Programming:** C, C++, Python3, Bash, Terraform
- **Web Development:** HTML, CSS, Javascript, XML, JSON, REST.
- **Cloud Platforms:** AWS, Azure, GCP, Oracle Cloud (OCI), Alibaba Cloud
- **Virtualization:** KVM, VMware, Intel DPDK
- **Containerization:** Docker, Kubernetes
- **Networking:** TCP/IP, Network Security, SSL/TLS, VPN, Routing and Switching, NAT, High Availability, IPSec, VLAN.
- **Debugging:** GDB, GCOV, Strace, Perf, TRex.
- **Version Control and Management:** Git, Perforce, Gerrit, Jira, Confluence, Target Process, Agile, Kanban
- **Tools:** Visual Studio, Linux, MS Office, Windows

EDUCATION

- [Master of Technology](#), Software Systems-Security. Birla Institute of Technology and Science 2021-2023 | GPA 3.6
- [Bachelor of Engineering](#), Computer Science & Engineering. Visvesvaraya Technological University 2011-2015 | GPA 3.0

EMPLOYMENT

Software Engineer	Cisco Inc.	Aug 2020 – March 2024
<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 in Public and Private Cloud platforms.• Designed and implemented 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 WA Linux Agent. Resolved issues as part of upgrading underlying Wind River Linux OS and FXOS.• Resolved several integration issues, performance issues and driver upgrades as part of underlying Wind River Linux OS upgrade to LTS 22, DPDK to v21 and FXOS upgrades in ASAv/FTDv deployments.• Enhanced debuggability and serviceability of virtual firewalls by integrating Datapath logs into debug commands and tac reports generated using ASAv CLI.• Mentored and onboarded new team members, providing comprehensive guidance on project methodologies, best practices, and technical tools, fostering their integration into the team.• Collaborated on pipeline creations, Code reviews, functional spec reviews and process enhancements with the team.		

Software Development Engineer

Red Piranha

May 2020 – Aug 2020

- Developed features for Crystal Eye, a Linux based 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 on code reviews, test case development, documentation, and process enhancements.

Software Development Engineer

SonicWall Inc.

Jun 2015 – Apr 2020

- Designed and developed several features for SonicWall's 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.
- 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.

CERTIFICATIONS & COURSES:

- [Oracle Certified Cloud Infrastructure Foundations Associate](#) (Feb 2022)
- [SonicWall Network Security Administrator](#) (SNSA)
- [Crystal Eye Certified Engineer](#) (CECE)
- [Certified SonicWall Security Administrator](#) (CSSA)
- Linux Kernel Debugging and Device Drivers. (Cisco Internal Course)
- Linux Process Management, Scheduling and Memory Management. (Cisco Internal Course)
- Cisco Certified Networking Associate (CCNA - Cisco Internal Course)

ACHIEVEMENTS:

- As part of Hackathon 2023, 1000eyes process was integrated to into containerd daemon running Cisco FTDv to improve network monitoring for customers.
- [Cisco Connected Recognition Award for extensive work on VirtIO issues](#) (Feb 2022) for resolving intricate VirtIO issues in ASAv/FTDv deployments in OCI, contributing significantly to product enhancement.
- [Cisco Connected Recognition Award for SR-IOV Support](#) (March 2021) for pioneering SR-IOV Support, optimizing performance in ASAv/FTDv deployments in Oracle Cloud Infrastructure.
- Recognized as a [SonicWall Technical Master \(April 2020\)](#) for comprehensive contributions to firewall development, bug resolution, and rapid customer environment deployments.
- SonicWall Outstanding Contributor for Q4 FY 2019
- SonicWall Key Contributor for FY 2018