

# RAVI KUMAR REDDY K

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## 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 at designing, configuring, developing, and troubleshooting of diverse vendor firewalls, routers, and switches.
- ★ Skilled in cross-functional collaboration and driving system-level improvements for enhanced user experience.
- ★ Passionate about innovation and staying ahead of the curve in the rapidly evolving virtual networking landscape.

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## 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, Performance Optimization
- *Containerization:* Docker, Kubernetes
- *Networking:* TCP/IP, Network Security, NAT, High Availability, SSL/TLS, VPN, Routing and Switching
- *Tools:* Git, Perforce, Jira, Confluence, Target Process, Agile, Windows, Linux

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## EMPLOYMENT

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| <b>Software Engineer</b>   | <b>Cisco Inc.</b> | <b>August 2020 – Till Date</b> |
| <ul style="list-style-type: none"><li>• Developed new features for <b>Cisco ASAc (Containerized firewalls)</b> and integrated with SFCN using C, Docker, and Kubernetes.</li><li>• Added support to <b>Broadcom NetXtreme and Mellanox Connect X-5 [DPU]</b> virtual NIC cards for Cisco ASAv and FTDv deployments in Oracle Cloud Infrastructure (OCI) with <b>SR-IOV support</b>.</li><li>• Resolved several <b>Performance issues, NIC underruns, hot-plugging issues, core dumps, memory leaks, CPS/PPS</b> issues on ASAv and FTDv deployments in Public and Private Cloud platforms.</li><li>• Designed and implemented <b>horizontal autoscaling support</b> for ASAv deployments in Alibaba Cloud using Python3 and Terraform.</li><li>• <b>Migrated Virtual firewall deployments in Azure</b> from Python2.7 to Python3.9 using Azure WA Linux Agent. Resolved issues as part of upgrading underlying Wind River Linux OS and FXOS.</li><li>• Enhanced debuggability and serviceability of virtual firewalls by implementing logging commands and tac reports.</li><li>• Collaborated on pipeline creations, code reviews, functional specification reviews and process enhancements with fellow engineers.</li></ul> |                   |                                |

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| <b>Software Development Engineer</b>   | <b>Red Piranha</b> | <b>May 2020 – August 2020</b> |
| <ul style="list-style-type: none"><li>• 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.</li><li>• Designed system specifications for SSLVPN features.</li><li>• Collaborated on code reviews, test case development, documentation, and process enhancements.</li></ul> |                    |                               |

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| <b>Software Development Engineer</b>  | <b>SonicWall Inc.</b> | <b>June 2015 – April 2020</b> |
| <ul style="list-style-type: none"><li>• Designed and developed several features for SonicWall's network security products and solutions.</li><li>• Integrated <b>SonicWall Switches with Firewalls</b>, simplifying end-user monitoring via a unified management interface.</li><li>• Resolved various issues in SonicOS, including Wire Mode Interfaces, Log Monitoring, FTP Logging, and more.</li><li>• Created CLI and API interfaces to configure Flow Reporting, ARP Storm Limit and AWS Integration of Firewalls.</li><li>• Designed and developed web applications for <b>log analyzers</b> namely <b>TSR Analysis Tool, EXP Viewer</b> that parse various sections of log files using Python3 and Regular Expressions.</li><li>• 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.</li></ul> |                       |                               |

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## 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

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## CERTIFICATIONS & COURSES:

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

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## ACHIEVEMENTS:

- [Cisco Connected Recognition Award for extensive work on VirtIO issues](#) (Feb 2022)
- [Cisco Connected Recognition Award for SR-IOV Support](#) (March 2021)