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| RAVI KUMAR REDDY K  +91-7411340221 • [ravikumark815@gmail.com](mailto:ravikumark815@gmail.com) • [LinkedIn](https://www.linkedin.com/in/ravikumark815) • [GitHub](https://www.github.com/ravikumark815) • [Leetcode](https://www.leetcode.com/ravikumark815) | | |
| **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,** m**emory 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](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 – Securityfrom **Birla Institute of Technology and Science (BITS).** 2021 – 2023 * **Bachelor of Engineering** in Computer Science & Engineeringfrom **Visvesvaraya Technological University.** 2011 – 2015 | | | |
| **CERTIFICATIONS & COURSES:** | | | |
| * [Oracle Certified Cloud Infrastructure Foundations Associate](https://github.com/ravikumark815/certifications/blob/master/OCI-Foundations-2022.pdf) (Feb 2022) * [SonicWall Network Security Administrator](https://github.com/ravikumark815/certifications/blob/master/SNSA.pdf) (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) | | | |