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| RAVI KUMAR REDDY K  **+1 647 576 9584** • [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 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. | | |
| **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 | | |
| **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 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. * Enhanced debuggability and serviceability of virtual firewalls by implementing logging commands and tac reports. * Collaborated on pipeline creations, code reviews, functional specification reviews and process enhancements with fellow engineers. | | |
| **Software Development Engineer** | **Red Piranha** | **May 2020 – August 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.** | **June 2015 – April 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. * 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. | | |
| **EDUCATION** | | |
| * [Master of Technology](https://github.com/ravikumark815/certifications/blob/master/Masters_Degree.pdf) in Software Systems-Security from Birla Institute of Technology and Science (BITS) | 2021 – 2023 * [Bachelor of Engineering](https://github.com/ravikumark815/certifications/blob/master/Bachelors_Degree.pdf) in Computer Science & Engineering from 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) * [Crystal Eye Certified Engineer](https://github.com/ravikumark815/certifications/blob/master/Red_Piranha_Crystal_Eye_Certified_Engineer_16042020.pdf) (CECE) * 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](https://github.com/ravikumark815/certifications/blob/master/Cisco-Award-VirtIO-OCI-ConnectedRecognition.pdf) (Feb 2022) * [Cisco Connected Recognition Award for SR-IOV Support](https://github.com/ravikumark815/certifications/blob/master/Cisco-Award-VirtIO-OCI-ConnectedRecognition.pdf) (March 2021) | | |