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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 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 firewalls, routers, and switches of diverse vendors. * Collaborative team player experienced in fostering relationships across cross-functional teams, contributing effectively to collective objectives, and achieving successful project outcomes. * Highly adaptable professional skilled in swiftly acclimating to new technologies and industry developments, adeptly navigating diverse work environments and evolving landscapes. | | | |
| **SKILLS & TECHNOLOGIES** | | |
| * Programming: C, CPP, Python3, Bash, Terraform, REST, JSON * Cloud Computing: AWS, Azure, GCP, Oracle Cloud (OCI), Alibaba Cloud * NFV: KVM, VMware, DPDK * 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 | | |
| **EDUCATION**   * [Master of Technology](https://github.com/ravikumark815/certifications/blob/master/Masters_Degree.pdf), Software Systems-Security. Birla Institute of Technology and Science 2021-2023 * [Bachelor of Engineering](https://github.com/ravikumark815/certifications/blob/master/Bachelors_Degree.pdf), Computer Science & Engineering. Visvesvaraya Technological University 2011-2015 | | |
| **EMPLOYMENT** | | |
| **Software Engineer** | **Cisco Inc.** | **Aug 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. * Resolved several integration issues, performance issues and driver upgrades as part of underlying Wind River Linux OS 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 specification reviews and process enhancements with fellow engineers. | | |
| **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](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) * [Certified SonicWall Security Administrator](https://github.com/ravikumark815/certifications/blob/master/CSSA.pdf) (CSSA) * Linux Kernel Debugging, 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](https://github.com/ravikumark815/certifications/blob/master/Cisco-Award-VirtIO-OCI-ConnectedRecognition.pdf) (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](https://github.com/ravikumark815/certifications/blob/master/Cisco-Award-VirtIO-OCI-ConnectedRecognition.pdf) (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)](https://github.com/ravikumark815/certifications/blob/master/SonicWall-Technical-Master.pdf) for comprehensive contributions to firewall development, bug resolution, and rapid customer environment deployments. | | |