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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 skilled in swiftly acclimating to new technologies and industry developments, adeptly navigating diverse work environments and evolving landscapes. * Adept at active listening, encouraging open dialogue, and valuing diverse perspectives within team settings, contributing to cohesive and productive work environments. * Demonstrated ability in identifying and **enhancing architectural scalability** and application design. Adept at developing diagnostic tools and utilities to troubleshoot issues efficiently. | | | |
| **SKILLS & TECHNOLOGIES** | | |
| * **Programming:** C, C++, Python3, Bash, Terraform * **Web Development:** HTML5, CSS, Javascript, XML, JSON, REST. * **Cloud Platforms:** AWS, Azure, GCP, Oracle Cloud (OCI), Alibaba Cloud * **Virtualization:** KVM, VMware, DPDK * **Containerization:** Docker, Kubernetes * **Networking:** TCP/IP, Network Security, SSL/TLS, VPN, Routing and Switching, NAT, High Availability, IPSec, STP, 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](https://github.com/ravikumark815/certifications/blob/master/Masters_Degree.pdf), Software Systems-Security. Birla Institute of Technology and Science 2021-2023 | CGPA 8.74 * [Bachelor of Engineering](https://github.com/ravikumark815/certifications/blob/master/Bachelors_Degree.pdf), Computer Science & Engineering. Visvesvaraya Technological University 2011-2015 | CGPA 7.3 | | |
| **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, 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](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 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](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-SRIOV-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. * SonicWall Outstanding Contributor for Q4 FY 2019 * SonicWall Key Contributor for FY 2018 | | |