

### **Objective**

To keep myself updated with technologies, staying competitive in my career & organization and empowering the youth for building India with peace and technology.

### **Career Highlights**

- Software Engineer with 15+ years of experience in the computer network industry.
- Proficient in all aspects of Software Development Life Cycle (SDLC).
- Good team player with excellent interpersonal skills.
- Precise in documentation of software information.
- Able to communicate effectively with both technical and non-technical project stakeholders.

### **Current Professional Status**

- Expert System Software Engineer @ HPE, Bangalore.
- Working on TCP/IP stack and proprietary HPE Non-Stop architecture.

### **Academic Qualifications**

- Research Scholar @ IIIT Bangalore. (Research Area : SDWAN)
- M.Tech from REVA University Bangalore, Karnataka.
- BE from VTU college (BLDEA Bijapur, Karnataka)

### **Technical Proficiency**

- Good in LINUX OS, C-language & Computer-Networks (TCP/IP), Shell-scripting, Python.
- Handled both control & data plane aspects of the networking box.
- Technical tools : tcpdump, gdb, valgrind, strace, traceroute, screen.
- Editors used: vi/vim, gedit, eclipse etc.
- Repository Management tools: perforce, git.

### **Ideas & Publications**

- Zero Touch Provisioning Password Protection (IPCOM000262458D)
- NotifySec - A secured notification infrastructure (DOI:10.1109/SmartTechCon.2017.8358604)
- Impact Analysis of Tunnel Probing Protocol on SD-WAN's Mainstream Traffic (DOI:10.1109/COMSNETS56262.2023.10041375)
- SDWAN – Its Impact and The Need of Time (DOI: 10.36548/jucct.2020.4.002)
- Reinforcement Learning-based Deep Queue Network Model for Tunnel Health Probing Protocol Management in SD-WAN (10.1109/ICMLCN59089.2024.10624772)

## Projects & Work Experience

Alcatel Lucent Enterprise: Bangalore (March 2018 - October 2021)

- Working in a team dealing with IP applications running on Marvel/Broadcom ASICs.
- Understood the architecture of AOS. (CMM, IP-NI, TCAM, Packet Driver)
- Owned DHCP Snooping, Relay modules.
- Developed an automation tool for developers which aid in running test cases.
- Made an IP.com publication on ZTP.
- Dev Environment : C, Python, Shell, LINUX

Aruba Networks: Bangalore (December 2012 - March 2018)

- Aruba has a range of WLAN products viz Access points with Controllers.
- It also has a VM based OS (ArubaOS) running on x86 architecture.
- It has in-house simulators for access points and orchestration.
- Languages & Tools Used: C, LINUX, shell script, python, lxc, vagrant, ovftool etc
- I worked on infrastructure and control plane aspects.
- Cross-compiled open-source tools SCP, FTP, TFTP, NTP, SNMP for IPv4 & IPv6.
- I fixed the control plane and other bugs.
- I fixed big-endian and little-endian bugs while making VM based AOS.
- Used ESXi Servers as type-1 hypervisors for their AOS VM deployment.
- Used LINUX containers (lxc) for saving hardware resources.
- Contributed to the intranet technical wiki pages.
- Conducted tech-talks once in a month.
- Dev Environment : C, Python, Shell, LINUX

CEM Solutions: Bangalore (July 2011 - December 2012)

- Shield is the small-company level unified-threat-management (UTM) gateway.
- It is a snort based IPS (Intrusion Prevention System), VPN using Openvpn, firewall using IP-tables.
- Shield has Cavium OCTEON MIPS64 processor with 100Mbps to 100Gbps capacity.
- It has a user-friendly GUI using PHP as a server side script.
- Programming Languages Used: C, C++, LINUX shell script, PHP.
- I wrote rules using snort-supported detection and preprocessor utilities.
- I gave the provision for users to write customized rules.
- I did both back-end code with proper server-side scripting.
- I did shell scripting for implementing very basic device and network settings for the Shield.
- Throughput measurement for evaluating UTM's performance under various traffics.
- Dev Environment : C, Python, Shell, LINUX

Wipro Technologies(Juniper-ODC): Bangalore (April 2010 – April 2011)

- B-RAS(Broadband Remote Access Server) is an edge-router.
- Project involves enhancement of existing network components and fixing the bugs.
- Languages & Tools Used: C, C++, LINUX, shell script
- Understood the concept of BroadBand Remote Access Server.
- Bug Fixing & Core-dump analysis.
- Dev Environment : C++, Python, Shell, LINUX

Nihon Communication Solutions: Bangalore (August 2008 – April 2010)

- Monosek is a PCI Compliant full duplex packet processing Engine built around IXP2400.
- Real time network traffic supports up to 100 Mbps – 1 Gbps.
- Separation and session analysis of HTTP packets for commercial and forensic usage.
- APIs are made available for engineering students as per academic projects at colleges.
- Languages & Tools used : C, Linux Shell script
- I segregated HTTP packets for building HTTP application sessions.
- I segregated the DNS-packet for building the DNS application sessions.
- I developed APIs for reading the analyzed information as well as raw packets from Sniffer.
- I gave around 125 demos in various colleges, DRDO, MCF-Hassan ISRO
- Dev Environment : C, Python, Shell, LINUX

### Personal Details

DOB: 23rd July 1985

Father (Hanumantarao) is a retired bank officer.

Mother (Bharati) is a housewife.

Wife (Asha) is professor at BMSIT engineering college.

Residence Address: #967, 2nd Cross, 6th Main, 6th Block, Vidyanarayapura, Bangalore-560097

### My Hobbies

- Teaching and presenting
- Singing and playing Tabla

### My Thought

If you do not know something, then go ahead and teach it.