Prasanna Shankar Ippala
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Education

University of Maryland College Park, MD
M.E, Electrical Engineering, GPA 3.71 May 2017
Courses: Adv. TCP/IP, Network Protocols, Satellite Communications, Wireless OFDM Systems, Network Security

Sardar Vallabhbhai National Institute of Technology Surat, India
B.Tech (B.E), Electronics & Communications Engineering May 2015
Courses: DSP, Mobile Communications, Data Communications & Networks, Digital Communications

Summary

- Experienced in configuration of cisco devices, Routing & switching concepts. CCNA (R&S) trained.
- Software test engineer for writing test cases, regression testing, Unit testing and test automation.
- Working knowledge of Linux OS, MySQL, Shell Scripting, REST API, Firewalls, ACL's and IPTables.
- Worked on Virtualization technologies like VMware, Vbox, KVM and AWS.
- Experienced in using Network tools like Solarwinds, Icinga (Nagios), Wireshark.
- Worked on Jira for Issue tracking, GIT for Version control and Agile Methodology (Scrum)

Technical Skills

Programming: C, Python, C++, Shell Scripting, HTML, CSS.
Network Protocols: TCP/IP, VPN, DNS, HTTP, DHCP, SNMP, ARP, ICMP, BGP, RIPv2, OSPF, EIGRP, VTP, STP.
Wireless Technologies: GSM, LTE, 3G, 4G, OFDM, OFDMA, CDMA, MIMO.
Engineering Tools: MATLAB, GNS3, Wireshark, Solarwinds NPM, Icinga (Nagios), Tableau, ELK stack.
Platforms: Windows, Linux, Cisco IOS.

Experience

VT iDirect Herndon, VA
Engineering Intern – Network Management System (NMS) team May 2016- May 2017

- Unit testing for REST API's and C++ source code, using google test and bash scripts.
- Responsible for L2/L3 testing, bug-replication, fault-isolation, root causing issues and bug fixing.
- Developed modules in Icinga (Nagios) for mapping remotes and for network hierarchy using REST API.
- Automated build sanity tests, machine image creation using Packer and Vagrant.
- Implemented SNMP stats visualization tool to iDirect's system using InfluxDb and Grafana.
- Set up centralized log monitoring and management system using ELK stack.
- Developed internal wiki content for iDirect's NMS team.

Electronics Corporation of India Ltd Hyderabad, India
Engineering Intern June 2013 – July 2013

- Worked on M7 V/UHF Radio Communications for government organization.
- Integrated various modules in M7 Radio and preformed quality assurance tests.

Projects

Network Design and Configuration for a small office network. Technologies: GNS3, Solarwinds NPM

- Configured routers for DHCP, RIPv2, EIGRP, NAT, ACLs and Switches for VLAN, VTP, STP using GNS3.
- Monitored the performance of entire network by integrating GNS3 and Solarwinds NPM.
- Used Wireshark for troubleshooting network issues and better understanding of protocols.

Networking Application for reliable data transfer. Technologies: C, Wireshark

- Developed an application in C for Multi-client communication with server to replicate SSH/Telnet.
- Setup username, hashed password based authentication and SSL encryption for secure data transfer.
- Used Tcpdump and Wireshark for analysis of captured packets.

Impact of Wearable Technology on healthcare industry Technologies: Python, Tableau

- Cleaned, Integrated and analyzed one year's wearable data focusing on health parameters.
- Implemented three classification models in python and drafted an analysis on the health of the users.
- Developed strategies to modernize the way insurance providers engage with their customers.
- Used Tableau for visualizing the health conditions of the users and survey data.

Simulation of OFDM based LTE transmitter/receiver system Technologies: MATLAB, OFDM, LTE

- Simulated design of LTE system in MATLAB & explored implementation issues of OFDM based systems.
- Observed SNR variations for different modulation schemes and channel noise conditions.
- Graphed the performance of the system with Rayleigh Fading and AWGN conditions with BER as metric.