

## APOORVA JOTANGIA

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### OBJECTIVE

Accomplished engineer with strong knowledge of CS fundamentals and passionate about new technologies

### EDUCATION

M.S in Computer Science, San Jose State University, San Jose, CA, **GPA-3.68**

**Graduated: Dec'15**

B.S. in Electronics and Telecommunication Engineering, University of Mumbai, India

**Graduated: May'11**

### SKILLS

<b>Programming Languages</b>	C/C++, Java, HTML, CSS, XML, JSON
<b>CS Fundamentals</b>	Data Structures, Algorithms, Object Oriented Programming
<b>Scripting Languages</b>	Perl, Python, PHP, JSP, PL/SQL, Unix Shell, JavaScript, jQuery, Ajax
<b>Networking</b>	IP Networking, packet forwarding, routing protocols (BGP, OSPF, HTTP)
<b>Database Systems</b>	MySQL, Oracle, MS SQL, Mongo DB
<b>Tools</b>	Eclipse IDE, NetBeans, Visual Studio, VI/Sublime Text 2 editor, Workbench

### EXPERIENCE

**Network Engineer Intern-** Reliance Communications (DAKC)

**July 2011**

- Assisted in configuring and maintenance of existing LAN/WAN for 4G technology
- Performed troubleshooting on switched VLAN with multiple routing protocols
- Administered Cisco switches, routers, QoS, VoIP telephony and network protocols
- Developed a chat messenger using Java to have VoIP, where phone calls are handled over IP address

### GRADUATE PROJECTS - SJSU

**1. Analysis and Implementation of Load Balancing in Software Defined Networking**

**Fall 2015**

- Proposed the idea to implement load balancing service using POX controller (fat-tree topology)
- Developed three load balancing policies like round robin, random and load based for better QoS
- Utilized OpenVswitch to connect hosts and controller together along with OpenFlow protocol
- Used Python scripting language to perform load balancing implementation
- Executed performance evaluation on the basis of Latency, Throughput and Response Time
- Developed a UI design using HTML/CSS for demonstrating the project application

**2. Extensible Messaging and Presence Protocol (XMPP)**

**Fall 2015**

- Created an Instant Messaging server using Openfire and Spark
- Successfully analyzed and captured network traffic based on XMPP/ Jabber protocol
- Observed the connection life cycle of XMPP using Wireshark tool

**3. Man in The Middle Attack (MiTM) - Vulnerabilities and Prevention Mechanism**

**Fall 2014**

- As the part of a group course project, implemented the MiTM attack using backtrack in Linux and Mininet
- Researched on couple of IEEE papers for proposed preventive algorithms-KS, DepMac-IP and ARPDote
- Demonstrated ARP spoofing caused by MiTM using network tools such as Ettercap, Dsniff
- Compared various algorithms on basis of cryptography, overheads and hardware requirements

**4. Photo Sharing Hub**

**Spring 2014**

**Part A: Desktop to Web Server Photo Sharing**

- Led a team of four to build a website with Java, PHP, CURL, MySQL and node.js to share photos/videos
- Enabled authentication for users to upload, download, delete and share photos on social networking sites

**Part B: Cross- Domain Photo Sharing**

- Enhanced the features with cross-domain photo sharing using Java socket programming, PHP and CURL
- Fabricated the Client-Server model with congruent processing and communication with http protocol

**5. Memory Management and Virtualization of Virtual Machines**

**Fall 2014**

- Analyzed Bare Metal and Hosted hypervisors and introduced three memory management techniques
- Compared memory management techniques such as Ballooning, Swapping and transparent page sharing
- Enhanced performance evaluation of each technique by carrying out various test cases on Virtual machines