



# Shivang Vikram Singh

Network Engineer & Data Science Enthusiast

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2+ years of experience in Network Engineering. Aspirations to grow in a professional setting, where I can use my skill sets in the field of Computer Networking, Cloud Computing and Security Domain

## EDUCATION

### Master of Science in Electrical Engineering San Jose State University

08/2016 - 12/2018

San Jose, CA, USA

#### Courses

- Internetworking
- Mobile and Wireless Networking
- Broadband Communication
- Network Security
- Voice and Data Networking
- Software Defined Data Centers

### Bachelor of Technology in Electrical Engineering Mahatma Jyotiba Phule Rohilkhand University

08/2011 - 05/2015

Bareilly, India

## WORK EXPERIENCE

### Full Stack iOS Backend Engineer Intern BottlesTonight, Inc.

01/2018 - 05/2018

San Francisco, CA

#### Achievements

- Exposed attributes on Active Admin Dashboard for venues using Ruby on Rails, PostgreSQL & GitHub.
- Modified and exposed the days of week available at Section level for venues, increasing efficiency by 20%.

### Electrical Division Intern Indian Farmers Fertilizers Coop Ltd.

05/2014 - 07/2014

Bareilly, India

#### Achievements

- Developed work procedure for electrical machines installed in the plant and helped in improving SWAT analysis of the organization.
- Improved the efficacy of Gas Turbine Generators, including Compressor and Combustion System to produce Sodium and Naptha in the plant.

### Electrical Engineer Intern Indian Railways

05/2013 - 08/2013

Bareilly, India

#### Achievements

- Scrutinized ideas to solve delays and lack of power supply and huge energy losses by autotransformer in the locomotives.
- Performed No Load Test for an assembled traction motor, by increasing the motor rate and rotation, to see positive effect in speed.

## SKILLS

Python SQL C MATLAB Data Structures

TCP/IP UDP DNS IPv4/6 DHCP MPLS

LAN BGP OSPF Linux Mac OS X VPNs

OpenStack AWS Cryptography VMWare

DDoS Attacks Firewalls Cisco Packet Tracker

## ACADEMIC PROJECTS

### Full Stack Hybrid Object Compressed Storage System

- Developed a cloud based highly scalable full-stack application that backups the data uploaded using OpenStack, NexentaStor and AWS.
- Evolved a policy to convert blocks of data into objects and then compress them before sending it to local storage and further to the Cloud.

### Network Traffic Analyzer

- Analyzed traffic on LAN and extracted IP addresses of blacklisted websites and the users trying to access such websites by parsing pcap file.
- Used cli & kml formats to see the location with their coordinates and depicted visually on Google Maps.

### Voice over Wireless Ad-Hoc Networks

- Implemented Voice over IP (VoIP) using SIP connections over Ad-Hoc Networks.
- Performed SIP based experiments on Call Establishment, Busy Lines, Call on Hold and Conferencing Calling. Also, calculated the Mean Opinion Score (MoS) value of the calls over a LAN connection.

### Mobile Network Statistics

- Simulated a mobile network with for point-to-point communication using a C++ script, calculated throughput as a function of number of users.
- Performed simulation for a three-node network; by increasing the distance and enabling RTS/CTS in the network.

### Simulation of MPLS protocol using NS-3 Tool

- Simulated MPLS computer network by Linux OS using command line interface (cli format).
- Observed the route taking lowest Time-to-live (TTL) among all networks.

## CERTIFICATES

### CCNA (R&S) by Cisco

In progress

### Complete Python Bootcamp by Udemy

tinyurl.com/ydfed516

### AWS Certified Solution Architect

In progress