Kashish Singh

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EDUCATION

- **North Carolina State University,** Raleigh, NC
  Master of Science in Computer Networking, GPA 3.7/4 — Expected May 2021
- **Ramrao Adik Institute of Technology, Mumbai University**, INDIA
  Bachelors in Electronics and Telecommunication Engineering, GPA 9.13/10 — May 2017

GRADUATE COURSEWORK

- Linux Networking
- Switched Network Management
- Internet Protocol
- Design and Analysis of Algorithms
- Advanced Internet Protocols

TECHNICAL SKILLS

- **Languages:** Python, Java, Xml, SQL, Bash, Ansible, HTML **Database**: MySQL
- **Operating System**: Windows(XP/Vista/7/8/10), Linux-Ubuntu, CentOS.
- **Tools :** Node-RED, Wireshark, WinSCP, Qemu-KVM, Netfilter, Iptables, Docker, Kubernetes, Container, GIT, PTC ThingWorx, TIBCO BW, TIBCO BE, TIBCO EMS, VMware ESXi, AWS VPC, IaaS
- **Networking technologies :** TCP/IP**,** OSI, UDP, DNS, DHCP, VLAN, Ethernet, STP, VxLAN, GRE, FTP, VTP, VPC, OVS.

PROFESSIONAL EXPERIENCE

Reliance Jio Infocomm Ltd | Mumbai, India — July 2017 - June 2019
Title: Software Engineer

- Co-ordinated in Training, implementing, configuring and verifying the virtualized network devices deployed for providing L2 network connectivity using NVO3 VxLAN tunneling architecture approach.(Automation and Virtualization)
- Interfaced with cross-functional team of business analysts, developers and technical support professionals to determine comprehensive list of requirement specifications for new applications.
- Received training and certification from Reliance JIO to represent brand, worked in Q-labs understanding architectural functionalities of network virtualization, Bluetooth low energy, GPS, 4G Volte, Data over LTE.
- Developed Tibco based Integrated telecom services leveraging TIBCO BW and BE softwares, orchestrating entire order to activation flow for a telecom industry.
- Experience of developing tasks to identify performance bottlenecks, identify anomalous system behavior and determining the root cause of incident

PROJECTS

- **CDN as a service in Virtual private cloud(VPC) using Ansible, Python and Bash** — Aug 2019- Dec 2019
  - Provisioning of Containers and VM's to create servers of Content distribution network(CDN) for multiple tenants on their hypervisors by providing structural hierarchy of data and replication servers with tenant isolation of highly scalable solution.
  - Implemented Kubernetes based self healing and load balancing features to continuously check health of containerized envt.
  - The implementation displayed that by using an efficient equal server load algorithm and node replication we could run an effective Distributed CDN for fast content retrieval.
  - Tasks involved container deployment and Kubernetes orchestration technologies at scale to include service discovery, deployments, monitoring, scheduling, load balancing features along with vpc deployment.
- **Peer to Peer with Distributed Index system** — Aug 2019 – Sept 2019
  - Implemented Centralized and P2P File Distribution system like Bit-torrent system over a TCP network forming a star topology LAN network of different peers containing files with a Registration server and to check the performance analytics.
  - Implemented Multi-threading and linked list concepts by utilizing socket programming to facilitate file transfer within peers.
- **Customer order Management service (250 million customers)** — Feb 2018 - June 2019
  - Devised TIBCO and java based service of Customer order mgmt. and Customer number mgmt. orchestrating data of 250 million+ customers to SAP CRM, ERP.
  - Implemented intercommunication between telecom systems enhanced by Enterprise service buses and Business events orchestration software of TIBCO BW and BE.
- **Wireless Sensor Network** — June 2017 - October 2017
  - Created a network of IoT Sensors performing edge networking by storing values on IoT cloud phant server utilizing ESP8266 then forwarding it to WSN coordinator from multiple discrete nodes using NRF24L01P.
- **Point-to-multipoint reliable data transfer protocol** — Oct 2019 – Nov 2019
  - Implemented P2MP-FTP reliable data transfer protocol using the Stop-and-Wait automatic repeat request (ARQ) scheme.
  - Buffering and managing data received from, or to be delivered to, multiple destinations using UDP transport protocol.