# Kashish Singh

3006 Kings Ct, Apt C, Raleigh, NC - 27606 | ksingh9@ncsu.edu | 919-888-7635
www.linkedin.com/in/kashish884/ | https://github.com/kashish884

## EDUCATION

- **North Carolina State University,** Raleigh, NC
  Master of Science in Computer Networking, GPA 3.94/4 — 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
- Design and Analysis of Algorithms
- Computer networks
- Switched Network Management
- Advanced Internet Protocols
- Computer Networks & Security
- Internet Protocol
- Software Engineering
- LTE and 5G

## TECHNICAL SKILLS

- **Languages:** Python, C, Java, SQL, Bash, Ansible, XML, JSON, YAML **Database**: MySQL
- **Operating System**: Windows (XP/Vista/7/8/10), Linux-Ubuntu, CentOS.
- **Tools:** Wireshark, GIT, Openstack, GCP, AWS VPC, TIBCO BW, VMware Vcenter, NSX-T server, ESXi Host
- **Virtualization:** VMDQ, SR-IOV, KVM, QEMU, Docker, Kubernetes, VxLAN, GRE, OpenVswitch, RSS, DCB
- **Networking technologies:** TCP/IP**,** OSPF, DNS, LAN, DHCP, VLAN, SDN, NFV, Native, ENS driver, VDS, VSS

## PROFESSIONAL EXPERIENCE

**INTEL Corporation |** Hillsboro, Oregon — May 2020 - present
**Title:** Graduate Intern Network Software Engineer

- Native and ENS (Enhanced network stack) Driver development and debugging for Intel NICs (Intel X710) for ESX operating system (partnering with VMware) at Intel's Ethernet product group.
- Implementation and testing of network functionalities like SR-IOV, VMDQ, Trusted VF, VxLAN, DCB on i40en and icen VMware drivers.

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

- Implementation, configuration, and automation of the virtualized network devices deployed for providing L2 network connectivity using NVO3 VxLAN tunneling architecture approach.
- Implementation of TIBCO and Java based services of Customer (250 million) order and number management services.
- Worked in Q-labs architectural functionalities of network virtualization, Bluetooth low energy, 4G Volte, Data over LTE in R&D department.

## PROJECTS

- **CDN as a service in Virtual private cloud (VPC) using Ansible, Python and Bash on Linux** — Aug 2019- Dec 2019
  - Developed Containers and Virtual machines to create servers of Content distribution network (CDN) for multi-tenants.
  - Kubernetes based self-healing and load balancing features to continuously check health of containerized environment.
  - Container deployment and Kubernetes orchestration technologies at scale to include service discovery, deployments, monitoring, scheduling, load balancing features along with VPC creation.

- **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.

- **Efficient Multimedia Live Streaming using Hybrid Overlay Network** — Jan 2020 – April 2020
  - Employed push-pull mechanism and Fibonacci heap algorithm on a hybrid overlay network improving effective streaming quality based on latency and upload capacity.

- **BLE based universal remote (Home Automation)** — Oct 2016 – Feb 2017
  - DTMF, Bluetooth low energy, PSOC, ESP8266 phant server based IoT system controlled by WSN Co-Ordinator.