# Rishabh Dwivedi

✉ rishabhdwivedi17@gmail.com | ☎ +91 7406681380 | ⌂ github.com/RishabhRD

## EDUCATION----------------------------------------------------------------------------------

Bachelor of Technology, Computer Science                                          (Expected to graduate May 2022)
Indian Institute of Information Technology, Dharwad
CGPA: 9.13

Grade 12 (CBSE): Anil Saraswati Vidya Mandir, Ayodhya, UP: 93.4% in Board Exms March 2017
Grade 10 (CBSE): Anil Saraswati Vidya Mandir, Ayodhya, UP. Secured CGPA of 9.60/10.00

## SKILLS-------------------------------------------------------------------------------------------

- **Languages:**              C, C++, Java
- **Tools:**                    Bash, Git, sed, awk, ssh, squid,Make
- **Kernel Programming:**  Kernel Modules, netfilters,shared library(linux)
- **Cloud Networking:**     OVS, LXC, Dockers, Mininet, tun/tap interfacing
- **Networking tools:**      Wireshark, tcpdump, iperf, netstat
- **Debugging Tools:**      GDB, Valgrind, gCov, strace, ptrace
- **Networking Skills:**     Software Defined Networking, Network Function Virtualisation
- **SDN Controllers:**      Floodlight

## COURSES TAKEN------------------------------------------------------------------------------

| | | |
|---|---|---|
| Engineering Mathematics | Data Structures | Computer Architecture |
| Theory of Computation | Digital Design | Design and Analysis of Algorithms |
| Software Engineering | Operating Systems | Object Oriented Programming |
| Microprocessors and Microcontrollers | Differential Eqns | Discrete Mathematics |

## PROJECTS----------------------------------------------------------------------------------

**ARP Poisoning: Detection and Prevention**                      (December 2019 – January 2020)
( https://github.com/sdnnet/sdn_arp_spoof_detection )
Designed a floodlight module to detect and prevent ARP poisoning in Software Defined Network environment. (Testing using: OVS, Floodlight, mininet, lxc)

**MSTP Floodlight** ( https://github.com/sdnnet/floodlight_mstp )          ( January 2020 currently working)
Implementation of Minimum Spanning Tree protocol using SDN approach for Floodlight

**MANET Routing Protocol**( https://github.com/manet-sih/location_aided_manet_routing) (January 2020 currently working)
Implementation of MANET Routing protocol similar to zone routing protocol optimized using the assumption of knowledge of current location using GPS simulated in ns-3 network simulator.

**ArpSpoof: DOS Extension** ( https://github.com/RishabhRD/kernelArpSpoofer )   (December 2019 currently working)
Implementation of ARP spoofing using kernel module that blocks the other's internet service in local network utilizing netfilters. Currently Extending it to reply to ARP Requests from kernel space itself.

**Xshare** ( https://github.com/RishabhRD/xshare )                      (July 2019 – August 2019)
xShare is a http server that helps us to browse the network file systems inside local network utilizing HTTP client(like a browser)

**Nautilus Terminal** ( https://github.com/RishabhRD/nautilus-terminal )      (July 2019 – September 2019)
Built an extension for nautilus file manager(default file manager for gnome desktop environment) for opening terminal in current path. It not only supports gnome terminal(as standard open in terminal does) but also other terminals utilizing shared library of linux.

**Sniffray** ( https://github.com/RishabhRD/sniffray )                      (April 2019)
Sniffray is a network sniffer for linux developed using linux raw sockets.

**Swipe** ( https://github.com/RishabhRD/swipe )                      (December 2019 currently working)
Swipe is a file sharing application utilizing linux sockets. It is intended to transfer files between two hosts having the application using WiFi and Bluetooth simeltaneouly.

**QR Scanner** ( https://github.com/RishabhRD/QRScanner)              (May 2019)
A simple QR scanner app for PC which can run Java. It is made up uopn JavaFX GUI Library.


# ACHIEVEMENTS-------------------------------------------------------------
4 start(Division 1) coder in codechef. Won the local coding competition in 12$^{th}$ standard.


# INTERESTS/HOBBIES------------------------------------------------------

Playing Chess, listening to music, reading and mantaining my archrice repository that has my arch linux setup