# Divyasheel Kumar

## Indian Institute of Technology Mandi (B.Tech. (Comp. Science) - CGPA 8.1/10)



#### WORK EXPERIENCE

Sept 20th, 22 May 20th,22

Mentor (Google Summer of Code) | GSOC'22, The Linux Foundation, Open Printing

> Was selected to mentor 2 projects for GSOC '22 in the org The Linux Foundation.

C gtk CUPS Python GNOME GNU/Linux

August 27th,21 May 17th,21 Student (Google Summer of Code) | GSOC'21, THE LINUX FOUNDATION, Open Printing

advertised network services in general) using Avahi.

C gtk CUPS Python GNOME GNU/Linux

Jun 15th,22 Jan 3rd, 22 O.D.E.(Open Data Economy) Holdings, Arizona, Full STACK DEVELOPER INTERN, REMOTE

> Developed the AWS back-end for a flutter application that enables you to automatically retrieve all your private data collected by 3rd party social media applications.

> Zeroconf browsing toolkit for listing and managing available IPP Print/Scan services (or DNS-SD-

AWS (Lambda | Event-Bridge | CDK | S3 | Gateway | Cognito) | Flutter | Android Studio

March 30th,21 Dec 14th,20 Web Development Contract, School of Computing and Electrical Engineering, IIT Mandi

> Selected for a paid contract with the school to redesign, update and add to the department's official

Php MySql(PDO) Javascript HTML/CSS

# ACHIEVEMENTS

Silver - INTER IIT Technical (Security Hackathon)

2021 First - Hack30 Hackathon at IIT MANDI

2019 2nd in C.S.E. branch (4th overall) - URI Competitive Programming Contest at IIT Mandi

Cleared - SysAdmin Test 2020 at IIT Mandi(Submission) 2020

# PROJECTS

### PAAS FOR HOSTING WITH AUTOMATIC REAL-TIME DEPLOYMENT ON SCALABLE HARDWARE

MAY 2022

github.com/divyashk/tech-meet

Developed a site that can deploy an application provided in the form of a docker container on a user provided subdomain. The hardware being any amount of multiple computers connected on a network. New instances of the same application are also created on different computers to achieve load balancing automatically, all the while retaining the same subdomain.

Docker Nginx Flask Python

#### SCALABLE HOSPITAL MANAGEMENT SYSTEM USING MICROSERVICE ARCHITECTURE

MARCH 2022

github.com/divyashk/tech-meet

In this project we used docker containers to create multiple instances of different/same micro-services and routed them through a gateway to remove congestion and increase scalability.

Docker Nginx Flask Python

#### ONLINE CODING PLATFORM - WECODE

MARCH 2021

github.com/Signior-X/hack30 2021

This is an online platform where people can code(live sharing), video call and draw(live sharing) illustrations on a white board together. This project stood first at Hack30 hackathon, IIT Mandi

JavaScript Flask Socket-IO Firestore Python

#### LIVE SERVER STATUS USING REGEX

SEPTEMBER 2020

github.com/divyashk/Server-status

This script provides live analysis about the issues faced by services on a remote UNIX server.

Python REGEX SMTP GNU/Linux

#### DNS-SD Tool for IPP(s)/HTTP(s) SERVICES

JUN 2021

This project aimed at making the process of identifying and using the zero-conf services broadcasted through a mDNS network. This tool is housed inside the printing panel for gnome-control-center using the gtk library for the front-end and avahi-client to resolve services in the back-end. This tool can be used to navigate to the web interface for each service and also has some filters in place that reduces duplicates from different network interfaces.

C Gtk Glade Avahi DNS-SD



Programming/Markup Languages C(gtk,CMake),C++(stl,OOP),Python(Pandas,Numpy,SciPy,Jupyter-

Notebook), HTML5/CSS (flexbox, bootstrap), Javascript (DOM, OOP), Java (OOP).

Infosec Radare2, Ghidra, Metasploit, gdb

Frameworks Flask, Django, Bootstrap, ExpressJS

Database Management SQL(MySQL), NoSQL(Mongodb, Firestore)

System Administration GNU/Linux (Debian, Arch), Apache, Nginx, bash/zsh/python

Others VScode, Hadoop, Umbrello, PhpMyAdmin, XAMPP

### + Positions and Responsibilities

- > Coordinator S.A.I.C.( System Administration and Infosec Club IIT Mandi )
- > Core Team Programming Club IIT Mandi
- > Organized and Conducted Tartarus CTF 2021 at IIT Mandi.
- > Admin for the public facing college SNTC server.
- > Mentor Guidance and Counselling Services(G.C.S.) IIT Mandi.
- > Coordinator Hikking and Trekking Club IIT Mandi.
- > Co-Coordinator NSS IIT Mandi.