Mohammad Shehar Yaar Tausif

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Academics

Indian Institute of Technology (IIT), Kharagpur

Bachelor of Technology, Department of Mining Engineering - 2nd Year.

Sep. 2020 - Present

CGPA - 8.18

Minor in Computer Science and Engineering.

Ongoing

Vidya Bharati Chinmaya Vidyalaya, Jamshedpur

April, 2007 - March, 2020

Class XII Central Board of Secondary Education (CBSE).

Percentage: 93.2%

Class X Central Board of Secondary Education (CBSE).

Percentage: 96.4%

Work Experience

SDE Intern at Neverinstall | Bangalore, Karnataka, India

March, 2022 - Ongoing

- neverinstall lets you access your favorite applications directly from your browser without downloading or installing them.
- Integrate webcam and mic for all available apps using loopback devices in linux.
- Traffic control using tc and eBPF in containers, involves bandwidth rate control and IP filtering. Website: https://neverinstall.com/

Projects

Lagnos VPN | C Programming, VPN, Routing, libuv, wolfSSL

Ongoing

- A VPN based on lightway-core (open-sourced) used by ExpressVPN.
- Uses lightway-laser wrapper for the core library.
- Working on TCP implementation.

Available here: https://github.com/sheharyaar/lagnos-vpn/

Concurrent Web Server | C Programming, Linux, TCP/IP, Sockets

October, 2021

- A concurrent web server in C using select() and sockets from scratch.
- Effective error handling and message logging. Supported HTTP/1.1 Methods: GET, HEAD, POST. Available here: https://github.com/sheharyaar/web-server-in-c

EXIF Data Extractor | C Programming, Linux

September, 2021

• Extracts EXIF data from Images and works for both Intel (II) endian and Motorola (MM) endian. Available here: https://github.com/sheharyaar/exif-data-extractor

Smart Doorbell | Python, Telegram BOT, Raspberry Pi, IoT

March, 2021

- Smart doorbell with image clicking and delivery via Telegram Bot.
- Persistent data storage, effective error checking and input sanitising. Available here: https://github.com/sheharyaar/DoorBOT-Telegram

Presentations

• Memory Allocators in C - dlmalloc at KOSS Lightning Talks. August, 2021 Available at - https://github.com/sheharyaar/sheharyaar/blob/main/Memory%20Allocators.pdf

• Introduction to Kernel Module Programming at KOSS event. Available at - https://github.com/sheharyaar/sheharyaar/blob/main/KMP.pdf July, 2021

SKILLS

Programming Languages: C, C++, Golang, Bash Scripting

Technical Skills: Data Structures & Algorithms, Linux Syscalls, IPC, TCP/IP & Sockets, VPN Protocols and Routing, Git, Linux, Docker.

Non Technical Skills: Problem-Solving and Critical Thinking, Documentation. **Leadership:** Vice Captain of the Indra House at high school for the year 2017.

Core Team Member at Kharagpur Open Source Society (KOSS)

July, 2021 - Present

- KOSS is a society dedicated to open source https://kossiitkgp.org/
- KOSS Organises the Kharagpur Winter of Code (KWoC) and organises Workshops on various topics like Git, Python, etc.
- I prepared slides for workshop on Git & Linux, worked on mailing script and backend server.

Maintainer of Direct Connect (DC), IIT Kharagpur

January, 2022 - Present

- Direct Connect (DC) is the largest P2P file sharing platform at IIT, Kharagpur.
- I was responsible for setting up PtokaX Server used for Direct Connect backend, on Raspberry Pi.
- I am responsible to maintain the server and document the process.
- The documentation and the source code is available at https://github.com/sheharyaar/ptokax

ACHIEVEMENTS

Open Soft 2022, IIT Kharagpur - Gold (1st) Position

April, 2022

- Open Soft is an interhall competition, in which a problem statement is released containing specifications of the software to be developed and related constraints.
- Skills Gained : Containers, Kubernetes, AWS Load Balancing, NGINX Load Balancing and Ingress.
- The documentation and the project code is available at https://github.com/sheharyaar/opensoft-iitkgp