

Academics

2021-present	B.Tech. in <i>Industrial and Systems Engineering</i> - Indian Institute of Technology, Kharagpur
CGPA	8.89
2021	<i>Joint Entrance Examination, Advanced</i>
AIR	3884

Projects

• MetaHub

PtokaX is one of the most popular server for DC along with its scripts by *HiT-Hi-FiT-Hai*. I implemented **automation of server setup and configuration**, as well as ensuring seamless operation through **effective management of services** and **smart configuration of static IP addresses**, has greatly contributed to the optimal performance of the server.

• KWoC Stats API

Revamped Stats generation API for *KWoC*, using the *Golang programming language* and the **go-fiber framework**. The API was designed to fetch the contributions made by participants during the event, with **Postgresql** serving as the underlying database, managed via **gorm**. The generated stats included crucial information such as the number of commits, pull requests, lines added and lines removed for every project the student worked on.

• FERP

FERP is a **browser extension** that **automates the process of filling feedback forms for course professors in IIT KGP**, available for both *chromium and firefox based browsers*. The extension **features random feedback** according to three modes - *positive, negative and neutral*, and **automatically moves to the next course or professor as the previous form is filled**. It is designed to save users time and effort in filling out feedback forms, and has been well-received by its users.

• Own YouTube

OWN YouTube is a **browser extension** that was developed using Javascript. The extension injects custom HTML and CSS for the YouTube frontend in real-time, **allowing users to disable shorts, trending videos, recommendations, and any other visible content**. Additionally, the extension **blocks ads** and offers a few additional features, such as a customized **video speed controller that exceeds the 2x limit** set by YouTube. It has greatly improved users' focus and productivity, leading to better utilization of their time.

• GSYNC

Gsync is a **BASH** script designed to automate the process of **syncing files and folders from a local *nix system to GitHub in real-time as a service**. It includes essential features such as start, stop, status, restart, enable, disable, as well as **my developed concept of selective-start and selective-stop**. This process is executed in a sophisticated and robust manner, and the tool offers **colored log management** for ease of use.

• Code Runner

Code-runner is a tool developed in **BASH** that simplifies the process of compiling and executing code written in various supported languages for ***nix** (Linux and Unix) users. Some of its features include **determining the version of Python (90% accuracy)**, support for files with spaces in their names, **Vim and VS Code keybindings** to maintain the development flow, and **an integrated debugging mode**.

Technical Skills

Languages	Bash, Golang, Java, JavaScript, Python, HTML, CSS, lua, C, C++, LaTeX
Data Storage / Handling	PostgreSQL, MongoDB
OS Platforms	Nix OS, Unix(Free BSD, Open BSD, Solaris-8,9,10 and MacOS X), Linux 5/6 (Debian, Fedora, CentOS, Arch, Gentoo and their derivatives), Windows (7, 8, 8.1 and 10)
Others	Git and GitHub, Linux System Administration, BackEnd Development, Web Browser Extension Development, Object Oriented Programming, Penetration-testing (Red Team and Blue Team), Gurobi & CPLEX Optimisation.

Activities & Leadership

- **Co-Founder, Cybernity:** I established a cybersecurity community to promote its genuine principles and practices, provide training and guidance, and encourage responsible and ethical practices in the field.
- **Executive Head, KOSS IIT Kharagpur:** Responsible for promoting and maintaining open-source culture; contributing to tools (campus-centric) such as feedback-automator, *FERP*, and *timetable manager* and successfully organising KWoC-22 (*Kharagpur Winter Of Code*) a month long event for promoting open-source development with 1.2k+ participants.

Relevant Coursework

Completed	<i>Programming And Data Structures (T/L)</i> Linear Algebra, Numerical and Complex Analysis (T) DIY (L) Basic Electronics (T/L) Probability and Statistics (T) Operations Research-I (T) Operations Research-II (T/L)
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(T)theory and (L)laboratory