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EDUCATION

IIIT HYDERABAD

B.TECH IN COMPUTER SCIENCE
ENGINEERING

2019 - 2023

CGPA: 9.58/10

NARIAN PUBLIC SCHOOL

2017 - 2019

Percentage: 92.4%

ACHIEVEMENTS

- Dean's List Spring '19-'20
- Dean's Merit List Monsoon '19-'20
- Codeforces Max Rating: 2137 [Master]
- Codechef Max Rating: 2008 [5 Star]
- Top 0.03% in JEE Mains India
- Top 0.9% in JEE Advanced India

LINKS

Github:// [Groverkss](#)

Codeforces:// [ltc.groverkss](#)

Codechef:// [ltc.groverkss](#)

COURSEWORK

COMPUTER SCIENCE

Data Structures and Algorithms,
Operating Systems,
Computer Networks,
Computer System Architecture,
Data and Applications,
Modern Complexity Theory (Audit)
Algorithm Analysis and Design

MATHEMATICS

Discrete Maths, Probability and Statistics,
Real Analysis, Linear Algebra

MISCELLANEOUS

Digital Systems and Microcontrollers,
Internet of Things, Introduction to
Software Systems

TECHNICAL SKILLS

LANGUAGES

Python • C • C++ • Bash • LaTeX •
x86 asm • Java • Javascript
• HTML • CSS

MISCELLANEOUS

Linux • Flask • MySQL • MariaDB • Git •
Nginx • Microsoft Azure •
• Markdown • Vi • gdb • Valgrind •
Helgrind • Google Cloud • Firebase •
Firestore • LDAP •
Networking Tools: iptables, dig, netstat,

RESEARCH PROJECTS

GAMES AND COMPUTATIONAL COMPLEXITY | WEBSITE | TALK

- Proved the video game 'CELESTE' is NP-complete and also how under certain changes it could have been PSPACE-Complete.
- Presented a dissertation explaining how computing different versions of Nash Equilibrium is PPAD-complete

TECHNICAL PROJECTS

LINUX SHELL/TERMINAL | GITHUB

- A modular Bash-like shell in C using Linux system calls including piping, redirection, signal handling, extensive error Zsh-like error handling.
- **Technologies:** C, Operating Systems, Linux

TLE@IIITH | GITLAB

- A discord bot for suggesting problems based on Codeforces history and creating graph based analysis based on Codeforces activity.
- **Technologies:** Python, Seaborn, REST APIs, asyncio

MODIFIED XV-6 | GITHUB

- Added new system calls and three new schedulers which can be selected on compile time: FCFS, PBS, MLFQ, to MIT xv6 Kernel.
- **Technologies:** C, Operating Systems, Unix, Concurrency, Scheduling

CONCURRENT ZONE SIMULATION | GITHUB

- Coded concurrent models for two scenarios with nuanced use of locks, condition variables, semaphores and Helgrind.
- **Technologies:** C, Operating Systems, Linux, Concurrency

DOMAIN SPECIFIC SEARCH ENGINE | GITHUB

- A comprehensive implementation of the entire stack required for Search Engines.
- **Technologies:** Python, nltk, Unsupervised Learning, Flask, Webscraping

DOTA2-ANALYZER | GITHUB

- Implemented a fully functioning cli based database management system based on data scraped from an open source database (OpenDota). Produces analysis based on match performance.
- **Technologies:** MySQL, Pymysql, Python, Database Design

EXPERIENCE

IIIT THEORY GROUP | ADMIN

Sept 2020 – Present

Administrate a community of students and graduates to discuss fundamental ideas in CS, Math. Hold alumni/member talks every Saturday and discussions every Thursday.

COMPUTER PROGRAMMING @ IIITH | PORTAL ADMIN

Aug 2020 – Present

Setup and Maintained an Online Judge for coding assignments and lab exams for introductory programming course @ IIITH.

IIIT PROGRAMMING CLUB | ADMIN

May 2020 – Present

Gave talks on advanced algorithms to promote competitive programming culture.