Tarun Sharma

8433501270 | linkedin.com/in/tarun-sharma-726291304/ | leetcode.com/tt2311

Education

Master of Technology | Computer Science and Engineering, Aug, 2022 – June 2024
Indian Institute of Technology, Delhi (CGPA 8.3)
Bachelor of Technology | Computer Science and Engineering, Aug, 2014 – June 2018
Vidyalankar Institute of Technology (CGPA 9.07)

ACHIEVEMENTS

- • **AIR 141 | GATE CS 2022** : Ranked 141 out of 77257 candidates in India with a gate score of 815.
- • **Competitive Programming**: Codeforces max rating:1650(Expert)| Codechef max rating:1973 (4*).

INTERNSHIPS

Teaching Assistant , IIT Delhi Aug 2022 – June 2024

- TA for **Data Structures & Algorithms, Computer Networks, Parallel Programming** during 4 semesters at IIT Delhi , in both offline and online mode.
  - Organised **tutorials** on STL, dynamic programming, graphs, heaps, etc.
  - Conducted **doubt-clearing sessions** of students offline, and online.
  - Arranged **1:1 sessions** for debugging C++ and Python codes.

PROJECTS

Peer Server Peer(PSP) network) (Prof. Abhijnan Chakraborty)

- Developed a robust multithreaded Peer Server Peer (PSP) network simulation for efficient file distribution across multiple clients, leveraging advanced socket programming with both UDP and TCP protocols. Integrated LRU-based cache management and MD5 checksum verification to ensure reliable chunk exchange and file integrity.
- Tools Used: C++, Socket Programming

Local Markdown wiki and editor (Prof. Rahul Narain)

- Created a desktop Markdown wiki and editor application in Python, utilizing tkinter for a dynamic user interface and custom libraries to manage a comprehensive article repository. Enabled seamless creation, editing, and deletion of Markdown articles with live rendering.
- Tools Used: Python, TKinter

Panorama Stitching (Prof. Anurag Mittal))

- Created Developed a panorama stitching program from scratch in Python, implementing advanced algorithms like Harris Corner Detection for accurate corner identification and a proximity-based sum-of-squared-differences method for precise frame matching. Employed an affine transformation model to seamlessly stitch frames.
- Tools Used: Python, Numpy

Real-time Network Multiplayer Game (Prof Rahul Narain)

- Designed and implemented a real-time multiplayer game accessible over a network, using ReactJS for the interactive front end and Socket.IO with NodeJS and Express for seamless, low-latency communication between players. Enabled two players to connect and compete from different systems on the same network.
- Tools Used: React, Html, Css, Javascript, Typescript

TECHNICAL SKILLS

Languages: C, C++, Python, Java, JavaScript, Git, SQL, HTML, CSS, Node JS, Express

Technologies and Core Skills: Pandas, Numpy, Scikit-Learn, QGIS, OpenCV, Github, Unity, DBMS, CN, DS, OS