SANDESHNARAYAN

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EDUCATION

Indian Institute of Technology, Kanpur | B. Tech, Mechanical Engineering 2024

• CPI: 6.6/10.0

KEY PROJECTS

Static-Site-Generator (Python)

- Automated HTML page creation from markdown files, reducing manual effort in website updates by 80%
- Implemented a template system for reusable design components
- Optimized file parsing efficiency, reducing processing time by 30%

Chirpy (Go)

- Created a lightweight micro blogging platform with real-time updates and integrated user authentication
- Designed an efficient database schema for optimized guery performance
- Improved API response time by 40% through efficient caching techniques

Asteroids (Python)

- Built the classic Asteroids arcade game using Pygame, optimizing performance for low-end systems
- Designed physics-based movement and collision detection for realistic game-play
- Enforced a scoring and difficulty progression system

Book-bot (Python)

- Developed a text analysis tool to process and summarize books/documents
- Executed word frequency analysis and readability scoring features
- Added a graphical interface for user-friendly interaction

ACHIEVEMENTS

- Won Intra-hall Volleyball Championship, Hall 2 (2023) at IIT Kanpur.
- Ranked 3809 among 200 K+ students in JEE Advance 2018
- Ranked 3456 among 1.2 M+ students in JEE Mains 2018

TECHNICAL SKILLS

- **Programming Languages & Frameworks:** Proficient in **Python** Intermediate in **Go** (including HTTP Servers & Clients), Experienced in **C** (Memory Management), Familiar with **SQL**, and **Pygame** for game development.
- Version Control & Collaboration: Proficient with Git and GitHub for version control and collaboration
- System Operations & Tools: Proficient in Linux (file system navigation, package management) and Knowledge of HTTP Protocols (Servers and Clients in Go)
- Software Development: Applied Object-Oriented Programming, Functional Programming, Debugging, and Testing in multiple projects
- Data Structures & Algorithms: Strong understanding of algorithms and data structures in Python (e.g., Stacks, Queues, Linked Lists, Binary Trees, Sorting Algorithms)

EXTRA-CURRICULAR ACTIVITIES

- · Active NSS Volunteer: Participated in multiple social initiatives at IIT Kanpur
- Organized Cleanliness Drive: Led efforts to clean IIT Gate under NSS IIT Kanpur's initiative