



## Contact

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## Education

**Career Accelerator Program**  
Prepleaf by Masai, Bengaluru  
April 2023 - Present

**Bachelor of Technology  
(Information Technology)**  
Netaji Subhash Engineering  
College, Kolkata  
August 2021 - Present

## Technical Skills

- Python
- Java
- Recursion
- Complexity Analysis
- DSA: Stack, Queue, Linked List
- Sorting Algorithms

## Soft Skills

- Problem Solving
- Attention to Detail
- Adaptability
- Effective Communication

## Certifications

- Programming for Everybody  
(Getting Started with Python)  
University of Michigan (Coursera)  
Certification Link
- Algorithms  
Stanford Online (Coursera)  
Certification Link

# Kumar Roshan

## Algorithm Developer Intern

## Professional Summary

Highly skilled undergraduate engineer proficient in Java, Python, HTML, CSS and Data Structures & Algorithms (DSA). A dedicated problem-solver with a passion for innovation and technology. Effective communicator and strong team player. Eager to contribute expertise to impactful projects in software development. Constantly learning and staying updated with the latest advancements in the field.

## Projects

### Terminal-Based Maze Solver [Github Repo Link](#)

- stack
- python3
- backtracking-algorithm
- dfs-algorithm
- Developed and Implemented a Python-based maze generation and solving algorithm in the terminal environment
- Designed and implemented a stack-based algorithm for the generation of random mazes with specified sizes and distinct start and end points
- Ensured the implementation of a maze generation algorithm that guarantees a single solvable path from the starting to the ending point
- Developed and integrated a depth-first search (DFS) algorithm to find solution paths within the generated mazes
- Created a user-friendly console interface, allowing users to interact with the program by printing solution paths, generating new puzzles, or exiting the application

### Typing Master [Github Repo Link](#)

- python3
- json
- time-module
- random-module
- Developed and implemented a Python-based typing test application to improve users' typing skills
- Designed and implemented a clear and intuitive command-line interface suitable for users of all skill levels
- Implemented multiple typing categories, offering users a diverse range of topics to practice typing
- Developed a leaderboard feature to track and compare users' words per minute (WPM) scores
- Implemented a timed typing test feature with randomly selected words from chosen categories, calculating WPM on-the-fly
- Implemented immediate feedback on accuracy during typing tests, prompting users to retry if input mismatches displayed words
- Ensured data persistence by storing the leaderboard in a JSON file