PRASHANT KHANDELWAL

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Result-driven graduate with 1+ year of work experience seeking full-time roles in Software Development

EDUCATION

Indian Institute of Technology Roorkee, *Int. Msc. in Applied Mathematics*   GPA: 8.083 / 10   June 2019 - Apr 2024

Courses: Design and Analysis of Algorithms | Data structures | Object Oriented Programming | Operating systems | DBMS

Languages & Tech Stack: C/C++, CMake, JavaScript, MongoDB, Express.js, React, Node.js, CSS, HTML, Git, Bash

EXPERIENCE

NimbleEdge Private Limited, *System Developer Intern* | Bangalore (India)   May 2023 - July 2023
- Developed a **testing framework in C++** using the **Google Test library** for test case management and execution.
- Created mock functions for various classes and implemented setter functions for mock objects to simulate and configure the expected behavior of actual functions during testing.
- Built a custom **test suite loading mechanism** to read test cases from JSON files, enhancing test flexibility and maintainability

InterviewBit, *Problem Setter and Content Reviewer Intern* | Remote (India)   August 2022 - April 2023
- Designed, tested, and authored detailed editorials on **DSA Problems**
- Created MCQs covering Computer Fundamental topics such as **Operating Systems and OOPS**.
- Managed Programming Contests and reviewed Technical Content.

Competitive Programming, | *Online Judges*   August 2019 - Present
- Highly skilled in problem-solving with over **2000+ coding questions** solved on platforms including Codeforces, Codechef, Atcode & LeetCode
- Codeforces: **Max. rating 1897** (Handle: Ingenious), Codechef: **Max. rating 2039** (Handle: prashant321022)
- Qualified twice for **ACM-ICPC** Regionals: **Rank 36, ICPC'21** (Kanpur Regional Round) & **Rank 57, ICPC'20** (Asia Gwalior-Pune Regional Contest)

PROJECTS

Real-Time Web Chat-Application | *Secret-Chat* (Deployed on Render)   Dec 2023 - Feb 2024
Tech Stack: React Js, Node Js, Express Js, MongoDB, Socket.IO
- Developed a feature-rich chat web application using the **MERN stack**, enabling seamless **one-on-one and group communication** with the implementation of **real-time messaging functionality using Socket.io.**
- Developed **front end using React Js** to create interactive, intuitive, responsive user interfaces.
- Implemented the **backend using Node.js and Express.js** to handle API integrations and database operations.
- Database Management: Used MongoDB to store and manage user data and chat information.

Solving Resource Constrained Project Scheduling Problem using GA | IIT Roorkee   Dec 2022 - April 2023
- Designed a genetic algorithm for solving RCPSP
- Conducted a full factorial experiment on the J30 and J60 datasets of the PSP Library to choose the best GA.
- The proposed algorithm proved effective and competitive in solving the RCPSP with medium and large scales (avg. deviation of **0.12 % in J30** and **11.77 % in J60** with 50,000 schedules and serial SGS)

Application of graph theory in ecological research | IIT Roorkee   Jan 2022 - May 2022
- Used graph algorithms and their structural properties to analyze real-world problems in Ecology
- Analysis of migrating routes of birds, their genes transmission worldwide, and the connectivity of habitat patches to predict and keep track of changes arising in the population
- Extracted useful information from the given data and use it for making effective conservation policies

ACHIEVEMENTS & SCHOLARSHIPS

- **AIR 3, Kishore Vaigyanik Protsahan Yojana (KVPY)** amongst 50,000 students.
- Global Rank 157, **Google Kick Start'22** (Round D)
- Global Rank 342, **Google Hash Code'21**
- Global Rank 128, **Codechef SnackDown'21 Round-3**
- Global Rank 83, Codechef January Lunchtime 2022 Division 1
- Global Rank 356, Codeforces Round #792 (Div. 1 + Div. 2)
- AIR 2293, JEE Advanced 2019