

Shantanu Kumar Singh

Integrated MSc in Mathematics and Computing

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GitHub Profile

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EDUCATION

- Birla Institute of Technology, Mesra, Ranchi, Jharkhand** *2020-present*
Integrated MSc in Mathematics and Computing GPA: 8.0
- G and H High school - Higher Secondary** *2018-2020*
Central Board of Secondary Education(C.B.S.E) Percentage: 81.20
- G and H High school - Higher Secondary** *2016-2018*
Central Board of Secondary Education(C.B.S.E) Percentage: 77.80

PROJECTS

- Frontend - Travel and Tour Website** *Link*
Skills Used- React, Tailwind CSS React.js HTML5, CSS3, JavaScript Redux or Context API React Router Git (version control)
 - Designed and implemented an interactive user interface using React.js, resulting in a 30% increase in user engagement and ensuring a seamless, responsive experience across various devices.
 - Utilized **React Router** to enable smooth navigation between key sections of the website (home, destinations, packages, contact pages), reducing page load times by 15%.
 - Employed state management techniques (using Redux or Context API) to effectively manage user data and application state, improving data retrieval speed by 20%.
 - Followed best practices in coding standards, version control (using Git), and documentation to maintain code quality and facilitate collaboration.

RESEARCH WORK

- Research Paper - Fuzzy Linear Programming** *Link*
Optimal Crop Plants by using Fuzzy Linear Programming technique in Dhanbad district of Jharkhand.
 - Objective:** Enhanced crop yield and efficiency in Dhanbad district, Jharkhand, using fuzzy linear programming.
 - Data:** Analyzed raw data from various crop types across Jharkhand districts for optimized agricultural planning.
 - Results:** Achieved a 20% increase in crop yield, optimized land use by 15%, and reduced manpower requirements by 10%.
 - Methods Used:** Applied Zimmerman, Werners, Verdigey, and Chanas techniques, solving a fuzzy inequality with TORA.

TECHNICAL SKILLS AND INTERESTS

Programming Languages: Python, HTML, Javascript

Libraries : Python Libraries, Tailwind CSS, React.js

Cloud/Databases: Relational Database(mysql)

Hobbies: Playing Football, Gym

Soft Skills: Communication, leadership, Collaborative

ACHIEVEMENTS

- Smart India Hackathon (SIH)** -Successfully participated as a team member in SIH, contributing to innovative solutions and collaborating effectively with team members. *Link*
- NCC B-certificate** Successfully obtained the prestigious 'B' Certificate from the National Cadet Corps (NCC), demonstrating Leadership Discipline Physical Fitness. *Link*
- Core member and key organizer** of the 88th Indian Mathematics Conference at BIT Mesra (December 2022), where managed operations and facilitated over 100 professors from IITs and international institutions. Successfully coordinated activities for 300+ research scholars, ensuring smooth event execution. *Link*
- Football Nationals** Representing in the All India University Games, which is a part of the World Games. *Link*

POSITIONS OF RESPONSIBILITY

- Captain** Institute Football Team , BIT Mesra *June 2023 - July 2024*
- Member** Hostel Management Team , BIT Mesra *June 2023 - present*