

# Shashank Sinha

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## PROJECTS

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**Edtech App** | *React JS, Node JS, MongoDB, Redux, API, Tailwind CSS* October 2023 – March 2024

- Implemented an ed-tech platform, where users are categorized in different categories, and based on it they are granted controls over respective functionalities, handled by authentication & authorization middlewares.
- Implemented backend in MVC architecture, using Express JS framework & Mongoose library. Also implemented login, signup & reset password functionalities. For implementing payment functionalities, I used Razorpay API. And for storing media files, I used Cloudinary.
- For further improvements, Node JS does provide cross-platform compatibility, which I can use to integrate the backend with a cross-platform frontend, to improve user experience.
- [Website](#) , [Github Link](#)

**Dictionary App** | *React JS, Context API, Material UI, Tailwind CSS* August 2023

- This app is a responsive website, which uses *Free-Dictionary-API*, to fetch a word's definition as per user query.
- Also implemented a Bookmark feature, using which user can bookmark some words, and they get stored in client's local storage. I also stored the definitions of bookmarked words in the client's local storage, which reduces unnecessary API calls and contributes to the app's performance.
- [Website](#) , [Github Link](#)

**Weather App** | *HTML, CSS, JavaScript* April 2023

- A dynamic weather viewing responsive app that uses *OpenWeather-API* to fetch weather details as per user query.
- The user can enter the required query (city name) on the search bar present at Search Weather section or can view his/her current location's weather by giving location access in the Your Weather section (home page).
- [Website](#) , [Github Link](#)

**Music Analysis in Python** | *Machine Learning, Data Processing & Analysis* March 2023 – April 2023

- Processed music files and audio data, & created an LSTM model, for predicting upcoming music elements.
- Reduced RMS error of 4.8030, to 3.2644 in 50 epochs. Doubling the epoch count, & adding some Dropout layers reduced it to 2.6238.
- [Github Link](#)

## ACHIEVEMENTS

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- Rated 2012, **Knight** (max. 2028) , Top 2.37 % on [LeetCode](#).
- Rated 1432, **specialist** (max. 1453) on [Codeforces](#).
- 5 Star on [HackerRank](#). (C++, Java, JavaScript, SQL)

## EDUCATION

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**National Institute of Technology, Patna**

CGPA : 7.77

*Integrated Master of Science, Physics*

*August 2018 – June 2023*

**Satyam International school, Patna**

75.2 %

*XII (CBSE)*

*2017*

**St. Joseph's High school, Patna**

CGPA : 9.6

*X (CBSE)*

*2015*

## TECHNICAL SKILLS

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**Languages:** C++, Java, Python (basic), SQL

**Web technologies:** React JS, Node JS, MongoDB, JavaScript, Tailwind CSS, CSS, HTML

**Python libraries:** pandas, numpy, matplotlib, music21