

# Karan CS

Software Development Engineer

About Myself

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## WORK EXPERIENCE

### SDE

#### Youth Story

Jammu

*Achievements/Tasks*

- 1. Successfully led a team of 5 backend developers in building the robust backend for the Youth Story website and mobile app. via **Django**
- 2. Implemented a diverse range of features, including user authentication, product listings, purchase and subscription functionality, direct messaging, group messaging, and 1:1 paid video call mentoring. via **React Native**
- 3. Developed a goal management system and an admin panel to oversee content, resulting in enhanced user engagement and a successful funding of 100k within a month of launch. Supported by renowned institutions like IIT Patna and GeeksforGeeks.

### SDE Intern - Full Stack Engineer

#### NexStead Private Limited.

06/2023 - 08/2023

Bengaluru, Karnataka

*Worked in the backend development sector in the first month*

*Achievements/Tasks*

- Developed an optimized file upload system in the backend, employing Postgres, ORM, Express, and Multer to ensure seamless and efficient file handling.
- Implemented a CSV file serving route in the backend, skillfully aggregating data and combining it to create downloadable CSV files for clients.
- Implemented the frontend for the same route by parsing the downloaded csv file and developing a graph out of it's data.
- Engineered a high-performance route that allowed the server to handle client requests and perform database operations on the same data 3-5 times per second. Leveraged techniques like database pooling and indexes (caching in the database) to achieve remarkable response times.
- Developed the frontend using React and TailwindCSS, skillfully utilizing powerful features such as React hooks and React charts to enhance the user experience.
- Created a full-stack e-commerce application using the MERN stack (MongoDB, Express, React, Node.js) in conjunction with Redux and TailwindCSS, providing a comprehensive and feature-rich platform for users.
- Designed an intuitive UI/UX for the e-commerce app, ensuring an enjoyable shopping experience, and successfully integrated real-payment functionalities using Stripe to process transactions securely.
- created a comprehensive UI/UX for the user and dealt with **real-payments using stripe in the Backend.**
- Demonstrated expertise in advanced MongoDB features, including Transactions, Aggregation, and handling many-to-many relations and JOINS, further optimizing the database interactions for enhanced performance.

Contact : Rizuanal Haque - nexsteadgames@gmail.com

## SKILLS

Node

MySQL

Docker

MongoDB

Python

Django

C++

JavaScript

typescript

React

Zustand/Redux

React Native

TailwindCSS

## PERSONAL PROJECTS

### Full Stack E-commerce platform (06/2022 - 02/2023)

- Technologies - Node, Express, MongoDB, React, Redux
- Leveraged the powerful features of Zustand and Redux to efficiently manage and maintain a global state in the frontend, ensuring seamless data flow and application performance.
- Utilized React hooks and lifecycle components to build a modern and responsive user interface, enhancing the overall user experience.
- Incorporated Tailwind CSS to create a visually appealing and user-friendly design, focusing on clean and intuitive UI/UX.
- Employed advanced routing techniques to enable seamless navigation and improve overall user experience.
- Implemented file upload functionality to allow users to interact with and manage their files seamlessly.
- Leveraged Winston and express-async-errors for comprehensive error logging, ensuring efficient debugging and issue resolution
- Implemented input validation using Joi to fortify the application against potential security threats, such as anonymous attacks and malicious input.
- Implemented session-based authentication and authorization using JWT (JSON Web Tokens), ensuring secure and efficient user authentication for enhanced data protection.
- Implemented **Mongoose transactions** with **two-phase commit** for ensuring data integrity, optimized data retrieval through **advanced MongoDB relationships**, and utilized **Mongoose aggregation** for generating insightful reports and statistics.

### Video Rental API

- A **freelance backend project** for a physical video rental store to efficiently manager their sales.
- Developed a robust API for a physical video rental store.
- Leveraged Express.js and Mongoose for implementation
- Utilized Fawn for ensuring data integrity using Transaction in MongoDB.
- Implemented comprehensive API security and input validation techniques.
- Utilized winston for **logging and error handling.**
- Employed **Unit testing, Integration testing, and followed Test-Driven Development practices.**
- Implemented JWT-based authentication, authorization with Bcrypt, and model methods and middlewares.

### Jira Clone

- Implemented a **Jira clone** with advanced features.
- Leveraged advanced SQL features such as **TRIGGERS,EVENTS**, and **INDEXING** for optimal performance.
- Employed efficient data modelling techniques for handling diverse data relations and transactions for data integrity.
- Incorporated **real-time chat functionality** using Web Sockets.
- Expressed math formulas and database techniques such as virtual methods and advance update triggers for calculating **the punctuality score of the employee of attending meetings.**
- Utilized **Express.js** and **Sequelize** as ORM, respectively.
- Utilized PostgreSQL as the DBMS.
- Utilized SQL's **Transaction** feature for ensuring data integrity using optimal isolation level.
- Enabled email-verification by the usage for **node-mailer** in order to send the code to the user via email.