

# NITYA SHAH

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## Education

**Vellore Institute Of Technology, India**

**Oct 2022 – Jun 2026**

*B.Tech in Computer Science and Engineering (CGPA: 8.48)*

## Work Experience

**Jio Platforms Limited**

**Sept 2024 – Nov 2024**

*Data Analytics Intern*

*Mumbai*

- Designed, developed, and optimized multiple regression models (Linear, Ridge, Lasso, Random Forest, SVM) with advanced feature engineering and selection (Random Forest importance, correlation analysis, VIF), reducing model complexity and improving predictive accuracy.
- Implemented advanced time series forecasting techniques with residual diagnostics and hyperparameter optimization, reducing overfitting by 20% and enhancing model generalization across validation and test datasets by 12%.
- Conducted comprehensive statistical analysis and automated model evaluation pipelines (correlation analysis, feature refinement, performance metrics), driving up to an 18% increase in  $R^2$  scores and delivering scalable, interpretable, and production-ready machine learning models.

## Technical Skills

**Languages:** Java, JavaScript

**Backend:** Node.js, Express.js

**Frontend:** React.js, TailwindCSS, HTML, CSS

**DevTools:** Postman, VSCode, GitHub

**Databases:** MongoDB, MySQL

## Projects

**QuickStay — MERN-based hotel booking app with login, roles, and Stripe payments**

[GitHub](#)

- Deployed a full-stack hotel booking application using the MERN stack with Clerk authentication, JWT-based role control (Admin/User), reducing unauthorized access and improving onboarding efficiency.
- Optimized backend with RESTful APIs and MongoDB to ensure scalable performance under heavy booking loads, deployed on Vercel for seamless access.
- Integrated Stripe payment gateway to support secure transactions and automate booking confirmation, improving customer trust and efficiency.
- Designed a fully responsive UI using React and Tailwind CSS, reducing user booking time across web and mobile devices.

**ChatBot — MERN powered AI conversational bot**

[GitHub](#)

- Developed a chatbot using MERN stack and Gemini API to generate real-time conversational responses with a responsive UI.
- Built a Node.js and Express backend with MongoDB storage to manage chat sessions and maintain scalable conversation history.
- Designed RESTful APIs and a modular frontend architecture, enabling easy deployment and customization for multiple chatbot use-cases.

**Streamify — React app for real-time video streaming with recommendations**

[GitHub](#)

- Built a responsive video streaming platform using React and the YouTube Data API to fetch and play real-time videos.
- Implemented a custom video player supporting playback controls for an immersive viewing experience.
- Designed a recommendation system that suggests personalized videos based on watch history.
- Optimized UI for scalability and consistent cross-platform performance across desktop and mobile environments.

## Courses

- Backend Development and API Creation
- AWS Cloud Practitioner Essentials
- Computer Networking

## Achievements

- Solved 150+ algorithmic problems on LeetCode and GeeksforGeeks, building strong proficiency in data structures and algorithms.