# PRINCE RAJ

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#### **SKILLS**

Languages JavaScript, TypeScript, HTML, CSS, C++, C

Technologies/Frameworks Node.js, NestJS, ExpressJS, Google Firebase, Vercel, RESTful API,

MongoDB, ElectronJS, Selenium Webdriver, Canvas

Developer Tools Visual Studio Code, Git, GitHub, Vercel, Postman, MongoDB Compass

Soft Skills Team Collaboration, Time Management, Problem-Solving, Attention to Detail

## **PROJECTS**

## Backend for Social Media Platform.

- Solely responsible for designing and building a robust and scalable backend API from scratch using NestJS for a social media platform, encompassing 30+ endpoints for user management, post creation, social connections, and other core features without compromising security and scalability.
- Implemented 5+ core features, like sign-in with Google (leveraging OAuth 2.0), OTP-based verification (using Brevo), profile customization (including profile picture upload, bio, location, etc.), and hashtags support in posts, etc.
- Designed and optimized the database schema using MongoDB, incorporating geospatial indexing for efficient retrieval of location-based data, to ensure scalability and efficient handling of a large volume of user data and concurrent requests.

## Profile Cards Generator. (Try it here)

- Created a full-stack website that generates shareable and personalized profile cards based on user-input data in real-time using a scalable API consisting of 5 endpoints, built using NodeJS and Express.
- Optimized API performance by implementing debouncing and field validations on front-end, resulting in significantly less load on server.
- Deployed on Vercel for efficient and reliable profile rendering, leveraging their platform's high availability infrastructure and achieving a 99.95% uptime rate.

# OCR-based Marksheet Scanner and CSV Converter Tool. (View here)

- Developed an open-source web-based OCR application using Tesseract.js that automates the conversion of marksheets to CSV, handling 20+ fields of data per marksheet like, student name, subject, grades.
- Developed custom utility functions with the proper documentation to extract relevant data from the marksheets, ensuring accuracy in the converted CSV format.
- Automated the marksheet conversion process, eliminating manual data entry, and significantly reducing the time required to generate CSV files.

#### **EDUCATION**

## Bachelor of Technology, Narula Institute of Technology

2023 - 2027

Computer Science Engineering With Specialization in Artificial Intelligence and Machine Learning

# EXTRA-CURRICULAR ACTIVITIES

• Active member of the Coding Club and Google Developer Student Community at Narula Institute of Technology, participating in workshops, hackathons, and events organized by Google Developer Groups, Kolkata.