

PRINCE RAJ

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EXPERIENCE

Backend Developer Intern at Ratoverse. ([View here](#))

Jan - July, 2025

- Designed and implemented a robust, scalable backend API from scratch using NestJS, TypeScript, and MongoDB for a social media platform, with 100% end-to-end ownership of architecture, code, and deployment.
- Developed 5+ core modules and features, including OAuth 2.0 Google authentication and JWT-based session management, OTP-based email verification, user connections with friend request handling, a query system supporting hashtags, upvotes, and comments, and geospatial data retrieval for location-based queries.
- Optimized MongoDB schemas with Mongoose, incorporating geospatial indexing and efficient querying to ensure scalability, handle high concurrent requests, and support large user volumes.

ACHIEVEMENTS

Patent on IoT-Enabled Predictive Farming System with Resource Optimization

([View Doc. Here](#))

Application (202531042207 A) published by the Indian Patent Office, by the Government of India on May 23, 2025

SKILLS

Languages

JavaScript, TypeScript, HTML, CSS, C++

Technologies/Frameworks

NodeJS, NestJS, ExpressJS, ReactJS, Google Firebase, Vercel, Redis
RESTful API, MongoDB, Tailwind CSS, Tesseract.js (Image Processing)
Prisma ORM, Inngest

Developer Tools

Visual Studio Code, Git, GitHub, Vercel, Postman, MongoDB Atlas, Cursor
Linux

PROJECTS

CoverGenius. ([Try it here](#))

- Developed an AI-powered web tool that generates tailored and professional cover letters in real-time based on user-input job descriptions and resumes.
- Implemented dynamic content personalization and job-matching algorithms, improving relevance and quality of generated cover letters.
- Deployed on Vercel to ensure high availability and low-latency performance, maintaining a 99.95% uptime rate.

OCR-based Marksheets Scanner and CSV Converter Tool. ([Try it here](#))

- Built an open-source web-based OCR application using Tesseract.js that automates the conversion of mark sheets to CSV, handling 20+ fields of data per mark sheet like, student name, subject, grades.
- Engineered custom utility functions with the proper documentation to extract relevant data from the mark sheets, ensuring accuracy of about 99% in the converted CSV format.

EDUCATION

Bachelor of Technology, Narula Institute of Technology

2023 - 2027

Computer Science and Engineering with specialization in Artificial Intelligence and Machine Learning

CGPA(out of 10): 8.68

EXTRA-CURRICULAR ACTIVITIES

- Web Development Lead of [Google Developer Groups on Campus '25](#) at Narula Institute of Technology and an active participant in hackathons, and events organized by [Google Developer Groups, Kolkata](#).
- Practiced 200+ coding problems, building strong foundations in data structures, algorithms, and coding efficiency.