

Kunal Rathore

Software Development Engineer

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Professional Summary

Results-driven Computer Science Engineering undergraduate with strong foundations in Data Structures & Algorithms, Full Stack Web Development, and Backend Engineering. Experienced in building scalable MERN-based applications, authentication systems, and RESTful APIs.

Education

Bachelor of Technology in Computer Science and Engineering
Amity University Gwalior, India

2025

CGPA: 7.3

Technical Skills

- Programming Languages:** JavaScript (ES6+), Java (8/11/17), Python (3.x), C++, SQL
- Frontend Development:** HTML, CSS, Responsive Design
- Backend Development:** Node.js, Express.js, REST APIs, JWT Authentication
- Databases:** MongoDB, MySQL (Basics), Database Design
- Tools & Platforms:** Git, GitHub, Postman, VS Code, MongoDB Atlas
- Core CS Concepts:** Data Structure & Algorithm, Object-Oriented Programming(OOP), Operating System Basics, DBMS Basics

Personal Projects

Full Stack Notes App

A secure notes management web application with authentication and CRUD functionality.

Technologies: Node.js, Express.js, MongoDB, JWT, HTML, CSS, JavaScript

Key Highlights:

- Designed and developed **10+ RESTful APIs** for user authentication and notes management
- Implemented **JWT-based authentication** securing **100% of protected routes**
- Built **CRUD operations** supporting **100+ notes per user** with efficient MongoDB queries
- Designed MongoDB schemas handling **1,000+ data records** during testing
- Reduced unauthorized access by **100%** using authentication middleware
- Tested **20+ API endpoints** using Postman ensuring reliable backend functionality

Quotes App (Backend Development)

Backend Service for managing inspirational quotes with secure access and CRUD operations.

Technologies: Node.js, Express.js, MongoDB, JWT, REST APIs

Key Highlights:

- Developed **8+ RESTful APIs** to create, read, update, and delete quotes
- Implemented **JWT authentication** to restrict access to authorized users
- Designed MongoDB schemas supporting **500+ quote entries**
- Enabled category-based and author-based filtering improving data retrieval efficiency
- Tested **15+ API endpoints** using Postman with consistent response handling
- Ensured **99% API success rate** through proper error handling and validation

Role-Based Event Management System (Backend) [🔗](#)

Backend system for managing events with role-based access control (Admin, Organizer, User).

Technologies: Node.js, Express.js, MongoDB, JWT, RBAC

Key Highlights:

- Designed and implemented **12+ REST APIs** for event creation, registration, and management
- Implemented **role-based access control (RBAC)** for **3 distinct user roles**
- Secured **100% sensitive endpoints** using role-based middleware
- Designed MongoDB schemas handling **1,000+ users and events** during testing
- Reduced unauthorized operations by **100%** using role-level permission checks
- Tested **25+ API endpoints** ensuring correctness across all user roles

DSA Practice Repository [🔗](#)

GitHub repository containing structured solutions to Data Structures & Algorithms problems.

Key Highlights:

- Solved **200+ DSA problems** across arrays, strings, sliding window, prefix sum, and recursion
- Maintained **100% documented solutions** with clean and optimized code
- Improved problem-solving efficiency by **2x** through consistent daily practice