

Ishu Agrawal

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Summary

Computer Science undergraduate with strong problem-solving skills and hands-on experience in backend development. Solved 500+ algorithmic problems and built REST-based applications using Java and Node.js. Comfortable with data structures, database management, and authentication systems. Seeking opportunities to contribute to real-world software engineering projects.

Technical Skills

Programming: Java, Python, JavaScript, SQL

Frontend: React.js, Vite, HTML5, CSS3, Tailwind CSS

Backend: Node.js, Express.js, RESTful APIs, Middleware, MVC Architecture

Databases: MongoDB, MySQL, Redis, Aggregation Queries

Security: JSON Web Tokens (JWT), OAuth2, bcrypt, Role-Based Access Control

Tools & Deployment: Git, GitHub, Postman, Render, Vercel, MongoDB Atlas

Education

GLA University, Mathura

Expected May 2027

B.Tech in Computer Science (AIML) | CGPA: 8.47/10

Vidya Devi Jindal School, Mathura

2023

Class XII – 86.6% — Class X – 95.0%

Projects

LedgerFlow – Transaction Management API | Node.js, Express.js, MongoDB

Feb 2026

- Developed backend system supporting user registration, account management, balance tracking, and fund transfers.
- Used MongoDB sessions and transactions to maintain data consistency during multi-step fund transfer operations.
- Designed ledger-based transaction model storing immutable DEBIT and CREDIT entries for audit tracking.
- Implemented JWT-based authentication with middleware authorization and role-based access control.
- Added idempotent request validation to prevent duplicate financial transactions.
- Structured transaction history retrieval using aggregation pipelines and optimized query patterns.
- Integrated email notifications for account creation and transaction alerts; deployed application on Render with MongoDB Atlas.

AutoQGen – Document Based MCQ Generator | Flask, NLP

Dec 2025

- Built web application that generates multiple choice questions from PDF, DOCX, TXT, Drive Links.
- Processed input text using spaCy for sentence segmentation and basic linguistic analysis.
- Integrated Google Gemini API for contextual question generation from summarized content.
- Applied TF-IDF based extractive summarization to reduce input size before API processing.
- Implemented structured validation logic to ensure consistent question format and answer mapping.
- Enabled downloadable PDF export of generated question banks and deployed backend service on cloud platform.

Problem Solving

- Solved 500+ coding problems across LeetCode, GeeksforGeeks, CodeChef, and Codeforces.
- Comfortable with core data structures including arrays, strings, recursion, stacks, queues, trees, and basic graph traversal.
- Practiced common algorithmic patterns such as two pointers, sliding window, prefix sums, and basic dynamic programming.
- Able to analyze time and space complexity and write clean, readable implementations in Java.

Certifications

- Microsoft Certified: Azure AI Fundamentals (AI-900) – 2025
- API Development & Automation – Postman Student Program – 2024
- AI for India 2.0 – GUVI – 2023