

# Ribhav Jain

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## Education

Shiv Nadar University, *B.Tech in Computer Science*; CGPA: 8.98

August 2021 – May 2025  
Greater Noida, India

## Awards & Accomplishments:

- Consistently achieved **Dean's List recognition** for 5 semesters, placing within the **top 10%** of the entire CSE department across all academic years.
- Shortlisted for **Berkeley Global Access** program at **UC Berkeley, United States**.
- Advanced to stage 2 in the **National Talent Search Examination**, securing position within the **top 5** percent.

## Skills

- Languages: Java, SQL, C

- Tools: GitHub, GitLab, Databricks, SonarCloud, AWS S3

## Professional Experience

Software Engineer, *Chegg Inc.*

January 2025 – October 2025 | Delhi, India

- **Built an LLM-driven text-to-SQL automation engine** using HuggingFace and LlamaIndex, with intelligent schema validation, query optimization, and hallucination detection—**reducing ad-hoc SQL generation time by ~60%** and significantly improving query reliability for BI teams.
- **Engineered an event-driven S3 monitoring and orchestration system** in Python that automatically validated, routed, and triggered Databricks ETL jobs via REST APIs, **eliminating manual job triggers** and improving overall pipeline uptime.
- **Built a PySpark-based validation system** to automatically **synchronize data between S3 and Databricks**, ensuring **accurate, up-to-date forecasts** and **reducing QA effort by ~70%**.
- **Architected cross-platform PySpark pipelines** to unify Mathway–Busuu data across iOS, Android, and Web, automating Net Paid Customer (NPC) computation and quarterly metrics generation, which **increased reporting accuracy and reproducibility**.

Software Engineer Intern, *NerdNextDoor*

May 2024 – July 2024 | Remote

Actions:

- **Developed a media resizer web application using Vue.js** that allows **Image and PDF resizing directly within the client browser** without needing server-based processing.
- Utilized **HTML5 Canvas and JavaScript** for image resizing and **implemented Ghostscript in WebAssembly** for PDF resizing.

Achievements:

- **Achieved 100% client-side processing**, eliminating the need for server-based operations.
- **Ensured complete data privacy** by keeping users' data **fully within their browser** for a **secure resizing experience**.

## Projects

Personalized Adaptive Math Tutor

Adaptive learning platform - PYTHON, HTML, CSS (with Bootstrap)

Autumn 2024

Actions:

- Implemented a dynamic **question selection system** that adapts in real-time to user performance, optimizing for both mastery and engagement.
- Integrated **Google DeepMind Mathematics Dataset** and preprocessed 240,000+ questions spanning **8 mathematical concepts** across varying difficulty levels.

Achievements:

- Delivered a **100% personalized learning experience**, dynamically tailoring content for users based on real-time mastery tracking.

SmartExpense+,

Expense Management Application - HTML, CSS, JAVASCRIPT, NODE.JS

Spring 2024

- Developed a comprehensive application for users to **categorize** and **monitor** their **expenses**.
- Implemented **budget allocation** and **real-time** tracking to help users avoid **overspending**.
- Integrated machine learning algorithms like **Random forest** to predict future expenses based on historical spending patterns and user behavior.

## EXTRA-CURRICULARS

- **Grade-5 Electronic keyboard**, *Trinity College London, Music*  
Achieved recognition for the best performance of a musical piece in all of South-East Asia.
- **State Level Swimmer**, *represented Meerut division at state level*