

# ANIRBAN ROUTH

Full-Stack Web Developer | MCA Student | Cloud Enthusiast

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Aspiring Software Engineer with a Master of Computer Applications (MCA). Proficient in the **MERN Stack, Python, and Google Cloud Platform**. Currently architecting scalable AI-driven solutions using Generative AI and Cloud SQL. Passionate about building optimized, user-centric applications and leveraging data analytics to drive business growth.

## TECHNICAL SKILLS

### Languages & Frontend

JavaScript (ES6+), Python, React.js, HTML5, CSS3, Tailwind CSS

### AI & Machine Learning

Generative AI, Agentic AI, Machine Learning, Groq API, RAG

### Backend & Cloud Architecture

Node.js, Express.js, Google Cloud Platform (GCP), Cloud SQL, REST APIs

### Database, Tools & DevOps

MongoDB, Mongoose, Git, GitHub, Postman, Vercel

## KEY PROJECTS

### AI-Powered EdTech Ecosystem (In Progress)

[MERN](#) | [Python](#) | [Cloud SQL](#) | [GenAI](#) [GitHub Repo]

- Developing a platform integrating **Generative & Agentic AI** to analyze student performance and recommend career paths.
- Architecting a **Hybrid Cloud Solution** utilizing **MongoDB** for content and **Cloud SQL** for transactional records.
- Building an internal Resume Builder featuring a custom **ATS Scoring Model** and data visualization dashboards.

### Agentic AI Document Assistant

[Live App]

- Built a **Context-Aware AI Agent** using **Groq API** capable of retaining conversation history with 98% accuracy.
- Integrated **RAG (Retrieval-Augmented Generation)** to process PDF uploads (200MB+) for deep document analysis.

### DSA Visualizer Platform

[Live Deployment]

- Developed an interactive platform categorizing **Data Structures & Algorithms** problems with live visualizations.
- Implemented optimized search and **Mobile-First** layout, utilized by 50+ students for concept clearance.

### SkillBridge – Freelance Marketplace

[GitHub Repo]

- Engineered a **Full-Stack Marketplace** with role-based dashboards and secure **JWT Authentication**.
- Implemented **Real-Time Messaging** (Socket.io) and integrated a mock **Razorpay Payment Gateway**.

## WORK EXPERIENCE

### Business Processing Associate

July 2023 – Sept 2025

#### Tata Consultancy Services (TCS)

- Managed large-scale datasets to generate insights, directly supporting strategic business decisions.
- Created data visualizations using **Advanced Excel**, achieving reporting accuracy of **99%**.
- Utilized analytical techniques to identify market trends and optimize internal business metrics.

### IT Web Developer Intern

May 2023 – July 2023

#### Royal Research

- Debugged **100+ Java/Web** issues; developed 50+ automated test cases using Python and Java.
- Collaborated with teams to validate technical accuracy in academic IT documentation.

## EDUCATION

### Master of Computer Applications (MCA)

Sept 2024 – Present

Netaji Subhash Engineering College, Kolkata

### Bachelor of Computer Applications (BCA)

2020 – 2023

Netaji Subhash Engineering College, Kolkata | **GPA: 8.7 / 10**

## CERTIFICATIONS & LANGUAGES

- AI/ML Minor Project Certification:** Resume IQ Analysis Platform (NSEC / NEAT)

- Languages:** English, Hindi, Bengali
- Class XII: **65%** | Class X: **77.4%**