

Umang Biyani

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SUMMARY

Undergraduate student in Electrical Engineering at NSUT with hands-on experience in MERN stack development, building scalable web applications using MongoDB, Express.js, React, and Node.js. Skilled in designing RESTful APIs, implementing authentication, and managing end-to-end application workflows. Experienced in developing responsive user interfaces and integrating backend services to create efficient, data-driven systems. Strong foundation in data structures, debugging, and writing clean, maintainable code. Eager to contribute to real-world projects and grow as a full-stack developer in collaborative environments.

SKILLS

- **Programming Languages:** Python, C++, JavaScript, Java
- **Frontend Development:** React.js, Tailwind CSS, GSAP, Leaflet.js, Typescript
- **Backend Development:** Node.js, Express.js, RESTful APIs, JWT, Mongoose, Node-Cron,
- **Databases:** MongoDB (NoSQL), SQL
- **Generative AI & NLP:** LangChain, Ollama, RAG Pipelines, Vector Search, BM25, FlashRank Reranking, PDF Chunking
- **Tools & Version Control:** Git, Dotenv, Postman

PROJECTS

Subscription Tracker | github.com/Tech-chemist/Subscription-Tracker

- Developed a scalable backend system using Node.js and Express.js for managing subscription data
- Designed RESTful APIs to handle user authentication and subscription CRUD operations
- Implemented secure authentication and authorization using JWT (JSON Web Tokens)
- Structured and managed data using MongoDB with Mongoose for efficient schema design
- Integrated cron jobs (node-cron) to automate subscription renewal reminders and notifications

Route runner | github.com/Tech-chemist/Route-runner

- Developed a dark-themed interactive maps application using React and TypeScript
- Integrated Leaflet.js with OpenStreetMap and CartoDB for real-time map rendering
- Implemented geocoding using Nominatim API to convert addresses into coordinates
- Built real-time route calculation using OSRM (Open Source Routing Machine)
- Designed full-screen UI for enhanced user experience

Research-RAG | github.com/Tech-chemist/research-RAG

- Built a fully local RAG system for academic research papers
- Created header-based PDF chunking pipeline with LangChain and Ollama
- Implemented hybrid retrieval using vector search, BM25, and FlashRank reranking

EDUCATION

Netaji Subhas Institute Of Technology

Bachelor of Technology, Electrical Engineering

- **GPA:** 8.68

Sant Gyanshwar Model School

Class 12th

National Victor Public School

Class 1-10th

CERTIFICATIONS

- **What is Generative AI: LinkedIn**
- **Introduction to Artificial Intelligence: LinkedIn**
- **Career Essentials in Generative AI: Microsoft & LinkedIn**

ACHIEVEMENTS

- **Executive Member, D'Code:** Led Ideathon (80+ participants) and CP contest (100+ participants). Resolved real-time issues ensuring smooth event delivery. Responsible for organizing and managing Hackathons and Ideathons.
- **Active Member – Hackethix:** Engaged in problem-solving, debugging, and rapid prototyping of applications.