# DIXIT KUMAR

Noida
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## EDUCATION

**Netaji Subhas University of Technology (NSUT)** **Aug 2021 – May 2025**
*B.Tech in Electronics and Communication Engineering* *Delhi, India*

- CGPA: 7.3/10 — Relevant Coursework: OS, DBMS, CN, Software Engineering, Algorithms

## EXPERIENCE

**KIMBAL** **Jan 2025 – Present**
*Software Developer* *Noida*

- Refactored 10,000+ lines of embedded C middleware for RL78/I1C smart meters, reducing memory footprint by 25% and raising packet reliability from 60% to 95% through systematic debugging with logic analyzers.
- Built Windows desktop automation framework using **C# .NET, WPF, and MVVM** for RF/4G module testing; implemented custom binary protocol parsers, factory pattern command handlers, and REST APIs with Swagger for MES integration, automating 8 critical test sequences.
- Developed production configuration system for RL78/I1C smart meters managing 20+ parameters, reducing firmware variants from 20+ to a single binary; built Windows CLI tool for factory deployment.
- Developed Python CLI tools and bash scripts to automate UART data extraction, serial testing, and firmware deployment, reducing manual QA effort by 66% and boosting testing throughput by 3x.
- Worked with real-time systems and RTOS, ensuring efficient and reliable system operation.
- Engineered real-time optical pulse decoding system integrated with internal ML labeling pipelines, increasing data processing throughput by 2x for model training.

**Amazon ML Summer School** **Jun 2024 – Aug 2024**
*Mentee – Applied Machine Learning Program* *Remote*

- Selected among the top 0.5% of 80,000+ applicants for Amazon's applied machine learning program.
- Integrated ML models with backend services using Flask APIs and deployed on AWS SageMaker for real-time predictions.
- Built end-to-end ML projects using Python, Scikit-learn, Pandas, and Flask APIs focused on model evaluation and deployment workflows.

## PROJECTS

**TravPlan** | *React, Vite, Tailwind CSS, Firebase, Gemini AI, Framer Motion* 2026 Live Demo — GitHub

- Built a full-stack **AI travel planner** using **React 18** and the **Google Gemini 2.0 API** that generates personalized day-by-day itineraries, hotel recommendations, and Google Maps navigation links for 50+ Indian and international destinations in under **30 seconds**.
- Designed a responsive, animation-rich UI using **Framer Motion** and **Tailwind CSS** featuring parallax hero sections, infinite destination marquees, and glassmorphism cards optimized for **mobile-first** users.
- Integrated **Firebase Authentication (OAuth 2.0)** and **Firestore** for secure Google sign-in and real-time trip storage, while implementing a production-grade **exponential backoff retry system** (3 attempts, 30–90s intervals) to handle API rate limits gracefully.

**Hirexx** – Full-Stack Job Portal | **Next.js, TypeScript, Node.js, Express, MongoDB, Tailwind** 2026 Live Demo — GitHub

- Developed a **production-grade** full-stack job portal with **RBAC** for job seekers and employers, featuring real-time job search with category and location filters, application tracking, and a save-jobs system backed by a **RESTful API** with **JWT authentication** and **bcrypt**-encrypted credentials.
- Implemented secure authentication using **Clerk** with **OAuth 2.0** social login (Google, GitHub, LinkedIn), protected route middleware, employer dashboards with applicant tracking and analytics, and deployed the platform on **Vercel** (frontend) and **Render** (backend).
- Built a mobile-first responsive UI using **Next.js 16**, **Tailwind CSS**, and **TanStack React Query**; integrated **Cloudinary** for resume uploads and architected a scalable **REST API** with **Express.js**, **Zod schema validation**, centralized error handling, async middleware, **Helmet**, rate limiting, **XSS protection**, and **MongoDB sanitization** across **10+ endpoints**.

**Chatify** – Real-time Chat App | **MERN, Socket.IO, Tailwind** Jul 2025 Live Demo — GitHub

- Built a scalable **real-time chat application** enabling 1:1 and group messaging with persistent chats, leveraging **Socket.IO**, **Express.js**, and **MongoDB** for seamless **WebSocket communication**.
- Implemented secure user authentication with **JWT** and cookie-based session handling; delivered features like typing indicators, online presence, and push notifications.

## TECHNICAL SKILLS

**Languages:** JavaScript, TypeScript, Python, C++, C, C

**Frontend:** React.js, Next.js, Tailwind CSS, Framer Motion

**Backend:** Node.js, Express.js, REST APIs, MongoDB, Firebase

**Tools Platforms:** Git, GitHub, Postman, Vercel, Render, Cloudinary, MongoDB Atlas

**Core CS:** Data Structures Algorithms, Operating Systems, DBMS, OOPs

## ACHIEVEMENTS

- Solved 900+ DSA problems across LeetCode, CodeChef, and GeeksforGeeks 1600+ rating on CodeChef (3).