

DIXIT KUMAR

Dwarka, Delhi

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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, Distributed Systems

EXPERIENCE

KIMBAL

Jan 2025 – Present

Software Developer Intern

Delhi

- Led the refactoring of 10,000+ lines of embedded C and middleware code, reducing memory usage by 25% and improving readability and maintainability across modules.
- Developed internal CLI tools in **Python** to automate data extraction from UART-based metering devices, improving QA efficiency by 60%.
- Engineered real-time decoding system for optical pulses and integrated it with internal labeling pipelines, boosting data throughput by 2x.
- Designed backend APIs using **Node.js** and **Express.js** to expose device health and status metrics to internal monitoring dashboards.
- Authored 30+ automated test cases using **FTA tools** and scripting, expanding test coverage for firmware modules by 50%.
- Diagnosed critical communication dropouts using **logic analyzers** and Docklight logs, raising packet reliability from 60% to 95%.
- Automated serial port testing using **Docklight scripting** and shell scripts, reducing manual QA effort by 66%.
- Wrote bash scripts to streamline firmware installation, log parsing, and file system cleanup tasks on Linux-based embedded devices.

Amazon ML Summer School

Jun 2024 – Aug 2024

Mentee – Applied Machine Learning Program

Remote

- Selected among top 0.5% of 80,000+ applicants for a competitive ML program by Amazon. Completed 120+ hours of applied learning focused on supervised and unsupervised learning, model evaluation, and cloud-based deployment strategies.
- Devised and rolled out 5 end-to-end machine learning projects using Python, Scikit-learn, and Pandas. Implemented regression, classification, and clustering models with a focus on hyperparameter tuning, data preprocessing pipelines, and performance metrics.
- Integrated trained models with backend services using Flask APIs and deployed them via AWS Sagemaker, enabling real-time predictions. Emphasized interpretability, version control, and modular design in model pipeline development.
- Collaborated with a peer group of 30+ mentees in hands-on weekly labs and capstone project reviews, simulating real-world ML team workflows such as model versioning, peer feedback, and iterative improvements using Git and Jupyter notebooks.

PROJECTS

Chatify – Real-time Chat App | MERN, Socket.IO, Tailwind

Jul 2024 [Live Demo](#) — [GitHub](#)

- Engineered 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.
- Executed secure user authentication and session handling with JWT and cookie-based tokens; bridged features like typing indicators, online presence, and push notifications.
- Styled responsive UI using React and Tailwind CSS, achieving sub-100ms interaction latency and supporting 500+ concurrent users in test environments.

JOB-ZEE – Job Portal Web App | React, Node.js, Express, MongoDB, Tailwind

Jun 2024 [Live Demo](#) — [GitHub](#)

- Shaped and brought live a full-stack job portal enabling recruiters to post and manage jobs, and candidates to apply with resume uploads, supporting 600+ active users.
- Merged secure user authentication using JWT and role-based access control (RBAC); encrypted credentials with bcrypt and ensured secure sessions via HTTP-only cookies.
- Crafted mobile-first, responsive UI with React and Tailwind CSS; linked dynamic search, filtering, and pagination, achieving 92% positive UX feedback in usability tests.

TravPlan - AI travel Planner | React, Tailwind, Firebase, Gemini, REST API, OpenAI

May 2024 [Live Demo](#) — [GitHub](#)

- Formulated a responsive travel itinerary generator using React JS, Tailwind CSS, and Gemini/OpenAI API, enabling personalized trip plans in under 5 seconds.
- Connected Firebase Auth and Firestore, ensuring secure user sessions and persistent data storage for 300+ user journeys.
- Achieved 92+ Lighthouse score on accessibility and performance by optimizing UI/UX for mobile responsiveness and fast rendering.

TECHNICAL SKILLS

Languages: Python, JavaScript, Java, C, C++, SQL, PL/SQL, Bash

Tools/Frameworks: TensorFlow, PyTorch, Scikit-learn, Pandas, NumPy, React.js, Node.js, Express.js, MongoDB, Docker, Streamlit, Postman,

Systems: Linux, Windows, Debugging, File Systems, Version Control, Internal APIs

Cloud/DevOps: AWS (SageMaker, EC2), Google Cloud (Colab), Docker, GitHub CI/CD

AI/ML Concepts: Prompt Engineering, LLMs, Supervised/Unsupervised Learning, Model Evaluation, Feature Engineering, NLP (SpaCy, NLTK)

Core CS: Operating Systems, Data Structures & Algorithms, OOP, System Design, Unit Testing, Data Analysis

ACHIEVEMENTS

- Solved 850+ LeetCode, 1600+ CodeChef (3-star), 300+ GFG DSA problems.