

# Deeptanshu Lal

✉ laldeeptanshu96@gmail.com | 🌐 Github | 🔗 LinkedIn | 🌐 deeptanshu.tech | 📞 +91 XXXXXXXXXX | 📍 Mumbai, India

## EDUCATION

### Ramrao Adik Institute of Technology, DY Patil University

B.Tech in Computer Science and Engineering

Mumbai, India

Sep 2022 – May 2026

- CGPA: **8.40/10**
- Coursework: **Distributed Systems, Data Structures, Algorithms, Database Management, Computer Networks**

## EXPERIENCE

### Software Engineering Intern

Reelsaga Innovations

July 2025 – Present

Andheri East, Mumbai

- Partnered with the **Head of Marketing** to engineer an **autonomous ad generation engine** using **Python, VLMs, and FFmpeg**; boosted campaign **CTR by 40%** and decreased **CPI by 25%**.
- Co-architected an **automated AI/ML subtitling pipeline** with the **Chief Technology Officer**, reducing editor turnaround by **75%** and streamlining post-production for **300+ videos monthly** on AWS.
- Automated critical **ETL pipelines** for Daily Active Users (DAU) and feed analytics using **Pandas**, significantly reducing manual report generation time.

### Fullstack Development Intern

Rudhirsetu Seva Sanstha (NGO Volunteering)

Jan 2025 – Apr 2025

Panvel, Navi Mumbai

- Developed and launched **official NGO website** using Next.js and TailwindCSS, serving **1,000+ monthly visitors** with **SEO optimization** such as meta tags, title tags, and dynamic Open Graph tag images
- Implemented **dynamic content management** with **Sanity CMS** for Camps, Gallery, and Donation features, enabling **real-time updates**

## PROJECTS

### Hacktoberfest Leaderboard – Google Developer Group | React, Node.js, WebSockets, AWS

Oct 2024

- Built **real-time leaderboard platform** with React.js, Socket.io, and Node.js/Express backend on AWS EC2 with Nginx, serving **200+ participants** with **sub-second latency** and **99.99% uptime**
- Integrated GitHub API with **webhook-based event streaming** to auto-update rankings, processing **1,000+ PR events** during Hacktoberfest with real-time synchronization and rate limiting to handle API throttling

### RecipeSense: Intelligent Recipe Recommendation System | Python, Scikit-Learn, Flask

Jul 2024

- Developed a **"Hybrid-Weighted" similarity kernel** that fuses TF-IDF textual embeddings with structured metadata signals, outperforming off-the-shelf collaborative filtering models in cold-start scenarios
- Engineered a **high-dimensional vector space model** to index **7,000+ culinary datasets**, utilizing dimensionality reduction (T-SNE) to visualize and debug cluster separation between distinct cuisine types

### WhisperX: AI-Powered Time-Accurate Subtitle Generator | Python, AWS, Next.js

Aug 2025

- Built **multilingual subtitle generation platform** supporting Hinglish, English, and Chinese with **90%+ accuracy** and **60x real-time transcription speed**
- Architected **production-grade pipeline** with TorchServe and AWS SageMaker for AI inference, AWS S3 for storage, and Next.js frontend serving **200+ concurrent users**
- Implemented **time-synchronization algorithms** achieving **frame-perfect subtitle alignment**, enhancing accessibility for **1,000Hrs+ video hours**

## TECHNICAL SKILLS & CERTIFICATIONS

**Languages & Databases:** Python, C/C++, SQL, JavaScript, TypeScript, PostgreSQL, MongoDB, Redis, SQLite

**Frameworks & Web:** React.js, Next.js, Node.js, Express.js, TailwindCSS, Socket.io, HTML/CSS

**AI/ML & Data:** PyTorch, Scikit-learn, Pandas, NumPy, Power BI, FFmpeg, WhisperX

**Cloud & DevOps:** AWS (EC2, S3, Lambda, SageMaker, RDS), Docker, Nginx, Git, CI/CD, Linux (Bash)

**Certifications:** AWS Academy (Cloud & ML Foundations), DataCamp Data Analyst, Davidson College (Power BI)