Harsh Aakoliya

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EDUCATION

Institute of Technology, Nirma University Oct. 2021 – June 2025

*Bachelor of Technology in Computer Science and Engineering (**CGPA: 8.18**)* *Ahmedabad, India*

EXPERIENCE

Samsung Jan. 2025 – Present

Software Developer Intern *Noida, India*

- Developed and optimized a **Bidirectional LSTM** model that achieved **98%** accuracy for **Auto Reply Generation**, improving performance by **54%** compared to standard LSTM models (44% accuracy).
- Reduced model computation time by **35%** through implementing efficient tokenization techniques and **GloVe embeddings** to optimise sequence preprocessing for large text datasets.
- Developed a **Retrieval-Augmented Generation (RAG)** system using **Phi-2 LLM and FAISS** vector database to efficiently answer domain-specific queries with semantic search capabilities.

Dobedo Soft June 2024 – July 2024

Backend Development Intern *Remote*

- Developed backend application for spelling and grammar checks, skill recommendations, and experience matching to improve ATS scores using resources like **Node.js** keyword extraction.
- Reduced API calling time by **20%** by implementing **Redis** cache mechanism.

PROJECTS

QNA platform | *MongoDB, ExpressJS, ReactJS, NodeJS, Redux, Cloudinary, Web Sockets* Try it

- Developed an online QNA platform with features like User Registration and Profiles, question posting, answers to already asked questions, vote counter, and bookmarks etc.
- Implemented real-time communication using **Socket.IO** allowing users to receive instant updates and messages without page reloads.
- Utilized modules like **JWT**, **Axios** for HTTP request handling, **Redux** for state management, and various middleware for verifying user credentials preventing unauthorized resource access.

Download Management Simulator *Java, OOPs*

- The Java-based high-performance Download Manager that employs multithreading to facilitate multiple simultaneous downloads, resulting in up to a 50% increase in download speed.
- It uses object-oriented programming and basic Java Swing components for smooth user interface to display dynamic, concurrent downloads

OPEN SOURCE CONTRIBUTION

Published Data Preprocessing Python Package- rhinorefine 0.9.5 | *Python, ML Algorithms* PyPI

- The preprocessor Python package provides a simple and easy-to-use interface for data preprocessing in machine learning projects. It includes various methods for data cleaning, scaling, and encoding.

TECHNICAL SKILLS

Languages: C, C++, Java, Python
Development: HTML, CSS, JavaScript, React/React-Native, NodeJS, ExpressJS, Microservices
Database: MongoDB, MySQL, Redis

ACHIEVEMENTS

- Solved over **1500+** problems of different difficulty levels on **Codeforces**, **Codechef**, **Leetcode**, **GeeksforGeeks** and other platforms.
- Rating at various coding platforms - **Leetcode** (Top **1.1%** at Global, max. rating - **2176**). **Codechef** (3 stars, max. rating - **1793**). **Codeforces** (Specialist, max. rating - **1449**). **GFG** (4 stars, max. rating - **1818**).
- Achieved notable competitive programming contest rankings: **11th** in GFG Weekly Contest 158, **36th** in Codechef Starters 101, **172nd** in Leetcode Weekly Contest 418 (out of 22,000+ participants).