

# VIRENDRA YADAV

## Member of Technical Staff 2

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### PROFESSIONAL SUMMARY

Backend Engineer with **2+ years of experience** in building high-performance systems, distributed components, and internal developer tools. Strong **DSA, problem-solving, Python/C++, and LLD** skills with experience in API design and large-scale backend workflows.

### TECHNICAL SKILLS

**Programming Languages:** C/C++, Python, Java, SQL, Bash

**Core Competencies:** Problem-Solving, DSA, OOPS, LLD, Distributed Systems

**Tools:** Git, Linux, Jira, Gerrit, Docker, VSCode

**Areas of Expertise:** Backup & Replication Workflows, API Integration, Data Protection Automation, System Diagnostics, Distributed Systems, Distributed File Systems

**Platforms:** Cohesity, Linux

### PROFESSIONAL EXPERIENCE

#### Member of Technical Staff 2 | Jul 2023 - Present

##### COHESITY | Bangalore

- **Designed and developed** multiple high-performance internal backend tools in Python to simplify trace debugging for 100+ engineers, improving debugging efficiency by 30–40%.
- Actively involved in code reviews, LLD discussions, and solving deep technical problems involving **backend workflows and distributed systems**.
- **Resolved** critical backend issues, including the Replication failure issue due to SHA1 mismatch leading to data loss, and fixed unit test failures, ensuring 98% code reliability and stability.
- **Developed** a Python-based trace-path analyzer and replication failure detector for the Madrox component, leveraging Iris API to identify downstream failures and flag issues, reducing debugging time by 30%.
- **Built** an SLA Expiration Tool using the Iris API to cancel queued replications with expired SLAs, improving system resource management by 15%.
- **Enhanced** replication stats visibility by adding detailed statistics (queued, completed, scheduled) to Advanced Diagnostics, improving system performance insights for all the teams.

**Technologies Used:** Python, C++, Linux Shell, REST APIs, Distributed Systems

#### Application Development Intern | May 2022 - Jul 2022

##### ORACLE | Bangalore

- **Developed** an **AI-powered** internal chatbot to automate employee queries, reducing manual load by 30%.
- **Integrated** chatbot capabilities with Oracle Digital Assistant tooling, improving internal workflow efficiency by 15%.
- Worked on **backend** component logic, flows, and deployment via Docker.

**Technologies Used:** NodeJS, YAML, Docker, Python

### EDUCATION

#### Btech in Computer Science and Engineering | May 2023

CGPA: 8.23/10

National Institute of Technology | Trichy, Tamilnadu

### PROJECTS

#### RAG-BASED CHATBOT | AI Application Project

Developed a context-aware RAG-based chatbot using LangChain.js and Google Gemini AI for intelligent document-driven conversations.

- **Implemented** vector-based document search and retrieval using Supabase Vector Store, enabling efficient semantic querying of uploaded documents.
- **Built** real-time streaming chat responses using Edge Functions and API route handlers, ensuring low-latency user interactions.
- **Designed** a responsive chat interface with document upload capabilities using Next.js 14 and React Server Components for optimal performance.

- **Tech:** Next.js, TypeScript, Supabase, LangChain, Gemini AI
- **Link:** <https://chatbot-ten-drab-28.vercel.app/>

## Inventory & Billing Management System | SaaS

Currently developing a SaaS-based Inventory & Billing Management System using FastAPI and Next.js to automate business workflows for small enterprises.

### PREP - INTERVIEW

Developed a website for sharing interview experiences and questions.

- **Implemented** user authentication using JSON Web Tokens, ensuring secure access.
- **Built** the platform using Node.js, Express.js, MongoDB, and EJS Template, enabling a seamless user experience.

## POSITIONS OF RESPONSIBILITY

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### TREASURER, MAXIMUS'23 | Mathematics Club – NIT Trichy

- **Managed** budgeting, audit reporting, and club finances.
- Conducted **coding and mathematics** competitions (Math Buzz, Codemax).
- **Mentored** junior students in mathematics & programming.

### HEAD of EVENTS, VORTEX'23 | National Level Technical Symposium, CSE'NITT

- **Led** complete event planning, technical content creation, logistics, and execution for national-level events.