Vaibhav Bhosale

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EDUCATION

2022 - 2026	**Vishwakarma Institute of Information Technology, Pune**	
	Bachelor of Technology in Electronics and Telecommunication	(**GPA: 7.88**)

WORK EXPERIENCE

• Indian Air Force (9 BRD), Pune   Jan 2025- June 2025

Project Intern

· Developed a **React**-based interface to display real-time thermal and visual inspection results, integrating AI model predictions **(KNN, SVM, Autoencoder) via REST APIs** to dynamically render defect overlays across **20+ PCB samples.**

· Deployed the **frontend on Jetson Nano & Raspberry Pi**, integrating it with the inspection pipeline to enable faster defect validation and reduce manual inspection **time by 30%**

· Implemented advanced state management and real-time image rendering in the **React interface**, enabling seamless overlay of AI-based defect results during live inspections.

PROJECTS

• VirtueHireX-AI Mock Interview | *Next.js, Gemini, PostgreSQL, Razorpay*   *GitHub* | *Demo*

· Integrated **Google Gemini** to generate job-specific interview questions, enable **real-time video/audio** recording, and provide **AI-driven feedback** with actionable improvement suggestions and performance ratings.

· Implemented robust user authentication and **authorization via Clerk** for secure access. Designed responsive user interface using **Nextjs**, **TailwindCSS** and **Shadcn**.

· Optimized data storage and retrieval with **Neon PostgreSQL** and **Drizzle ORM** for scalability and reliability, while integrating **Razorpay** for seamless and secure payment processing.

• AutoDock: CI/CD Deployment Engine | *Node.js, React, Docker, AWS EC2*   *GitHub* | *Demo*

· Engineered a production-ready full-stack web app, with a containerized **Node.js** backend and **React** frontend, deployed on **AWS EC2** via **Docker**.

· Built a robust **CI/CD** pipeline using **GitHub Actions** to automate Docker image builds, push to Docker Hub, and trigger zero-downtime EC2 deployments with **Nginx** reverse proxy, **PM2** process manager, health checks, and rollback-ready multi-stage Docker builds.

• AskMyPDF: AI Powered PDF QA App | *FastAPI, LangChain, Google Gemini, React*   *GitHub* | *Demo*

· Engineered an end-to-end **Retrieval-Augmented Generation (RAG)** pipeline using **FastAPI**, **LangChain**, and Google **Gemini**, enabling contextual question answering over uploaded PDFs with vector-based semantic search via **ChromaDB**.

· Built a scalable, full-stack architecture with a FastAPI backend and React.js frontend, integrating real-time document upload, feedback handling, and **chat-based interaction powered by LLMs**.

· Delivered production-grade features including vector chunking, metadata tracking with SQLite, secure file handling, and a responsive UI showcasing mastery of **modern NLP, cloud API usage**, and clean API design.

TECHNICAL SKILLS

Languages:	C++, Java, JavaScript, Python
Technologies/Frameworks:	Node.js, Express.js, React.js, Angular, Tailwind CSS, Next.js, FastAPI, Langchain
DevOps & Cloud Tools:	AWS, Docker, Jenkins, Ansible, Git, GitHub Actions, JIRA
Databases:	MongoDB, PostgreSQL, MySQL

EXTRACURRICULAR

EESA (Electronic Engineering Student Association)   Sept 2023 – Oct 2024
Joint Event Management Head — Organized department-level event during college technical fest.

I2IC (Institute to Industry Connect)   Oct 2023 – Oct 2024
Council Member — Volunteered for campus placement drives at VIIT and VIT.

PROFILE LINKS

Leetcode Solved 380+ problems, achieving a maximum rating of 1459.

GeeksforGeeks Solved 100+ problems, with a highest ranking of 1651.