Vaibhav Bhosale

vaibhavbhosale1 | Vaibhav Bhosale | Portfolio | textmevaibhav@gmail.com | +918830790274

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.

• **Blended Model for SAR Image Classification** | ***Python, Tensorflow, CNN, SVM*** *GitHub* | *Demo*

· Developed and implemented a **hybrid model** combining **Convolutional Neural Networks (CNN)** and **Support Vector Machines (SVM)** for **accurate classification** of Synthetic Aperture Radar (SAR) images.

· Achieving superior performance, the CNN+SVM model **delivers 99% accuracy, 99.14% precision, and 99.16% recall**, outpacing other models in both accuracy and classification robustness.

· Classified **military vehicles (e.g., 2S1, BRDM 2, BTR60, D7, SLICY, T62, ZIL131, ZSU)** to enhance ATR performance and advanced SAR imagery.

• **ChatterBox - Chat App** | ***MERN, Socket.io, Daisy UI, Tailwind CSS*** *GitHub* | *Demo*

· Integrated **Socket.io for real-time messaging** and online user status updates. Created **authentication** and authorization using **JWT** to ensure secure access. Developed robust **error handling** on both the server and client sides.

· Utilized **TailwindCSS** and **Daisy UI** for a modern, responsive, and visually appealing user interface. Managed global state with **Zustand** for efficient **state management** across the application.

Technical Skills

Languages:	C++, Java, Javascript, Python, MySQL
Technologies/Framework:	Node.js, Bootstrap, Express.js, MongoDB, React.js, Next.js, Tailwind CSS PostgreSQL, Git, GitHub, Kanban
Developer Tools:	VS Code, Android Studio, Jira, Eclipse, keil uVision

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 400+ problems, achieving a maximum rating of 1459. ***LeetCode***
GeeksforGeeks: Solved 100+ problems, with a highest ranking of 1651. ***GeeksforGeeks***