

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](#) 

- 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 image builds, DockerHub pushes, and instant EC2 deployments on each commit
- Streamlined deployments with **Nginx** reverse proxy, **PM2** process manager, health checks, and rollback-ready multi-stage Docker builds

• **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.

TECHNICAL SKILLS


Languages: C++, Java, Javascript, Python
Technologies/Framework: Node JS, Bootstrap, Express JS, React JS, Angular, Tailwind CSS, Next JS
Devops & Cloud Tools : AWS, Docker, Kubernetes, Jenkins, Ansible, Git, Github Actions, JIRA
Databases Mongo DB, 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. [LeetCode](#) 
GeeksforGeeks: Solved 100+ problems, with a highest ranking of 1651. [GeeksforGeeks](#) 